



DR. C. B. JOHNSON
CHAMPAIGN, ILLINOIS

REMOTE STORAGE
BOOKSTACKS OFFICE

THE UNIVERSITY
OF ILLINOIS
LIBRARY

From the library of
Dr. Charles B. Johnson
Champaign
Presented by
Alice S. Johnson, '07
1933

610.5
ILM
v.1

UNIVERSITY OF
ILLINOIS LIBRARY
AT URBANA-CHAMPAIGN
BOOKSTACKS

The person charging this material is responsible for its return on or before the **Latest Date** stamped below.

Theft, mutilation, and underlining of books are reasons for disciplinary action and may result in dismissal from the University.

University of Illinois Library

LIBRARY
UNIVERSITY OF ILLINOIS
URBANA

JUL 24 1968
DEC 2 1980
NOV 12 1980

L161—O-1096

LIBRARY
UNIVERSITY OF CHICAGO
URBANA

ILLINOIS MEDICAL JOURNAL

Dr. H. B. Johnson
CONTAINING THE *champaign*

Official Record of the Proceedings of the Illinois
State Medical Society

MEETING AT CAIRO, MAY 16, 17, 18, 1899

THE LIBRARY OF THE

OCT 5 1954

AND THE

UNIVERSITY OF ILLINOIS

PROCEEDINGS OF AFFILIATED CITY, COUNTY AND DISTRICT SOCIETIES

EDITED FOR THE SOCIETY BY THE
PUBLICATION COMMITTEE:

E. W. WEIS, M. D.
OTTAWA

H. N. MOYER, M. D.
CHICAGO

G. N. KREIDER, M. D.
SPRINGFIELD

VOLUME XLIX.--NEW SERIES, VOLUME I.

July, 1899 to June, 1900

SPRINGFIELD:
ILLINOIS STATE JOURNAL PRESS

REMOTE STORAGE
BOOKSTACKS OFFICE

GENERAL INDEX.

Abortion, Sociological View of Criminal....	394	Corr, A. C.: Medical Laws, etc.....	542
Address: President's: Currents and Counter Currents in Medicine.....	3	Correspondence:	
Address: Puerperium, surgery of the.....	99	Science and Politics	227
Address: Therapeutics: Past, Present and Future	51	Activity of the Quacks.....	88
Alcoholism, the Prevalence of, etc.....	355	Magnetic Healers	89
Alcoholic Inebriety, Nervous Complications and medico-legal relations of.....	364	Harriet E. Garrison: Why We Called it Chicken-pox.....	410-454
Allaben, J. E.: Gall Bladder Surgery.....	316	Culture, Psycho-Physical	60
Ambulatory Treatment of Fractures.....	477	Currents and Counter Currents in Medicine	3
Andrews, Edmund: Drainage and Irrigation of the Pleura in Empyema, etc.....	472	De Lee, J. B.: Eclampsia, the Treatment of	74
Andrews, E. W.: Radical Cure of Hernia..	211	Dixon Epidemic	454
Andrews, E. W.: Gastric Ulcer	254	Doepfner, Carl: Exophthalmic Goitre, etc.	372
Anesthesia, general Schleich's mixture for,	243	Earle, F. B.: Puerperal Eclampsia.....	431
Animal Experiments (gastric ulcer).....	254	Eckard, E. M.: Relation of Laws, etc.....	545
Anterior-polio-myelitis, acute.....	150	Eclampsia, Etiology of.....	71
Appellate Court, decision.....	233	Eclampsia, Puerperal, Diagnosis, etc.....	431
Appendicitis, why and when operate for...	423	Eclampsia, the Treatment of.....	74
Arrangements Committee, meeting of.....	230	Eddy, W. J.: Erythromelalgia or S. Weir Mitchell's Disease	486
Association of Military Surgeons of State of Illinois	563	Editorials:	
Auditing Committee, report of.....	127	A Conviction Under the New Medical Practice Act.....	174
Auto-infection, intestinal	529	Aid S. B. of H.....	440
Bacelli's Method in Treatment of Tetanus..	218	Announcement.....	34
Bacon, C. S.: Perforation of Uterus, etc...	383	Anent Tuberculosis	178
Barlow, C.: Medico-legal Aspect of Bright's Disease	427	Are We Wiser than They?.....	441
Baughman, J. A.: Complete Prolapsus of an Ovarian Tumor through Anus.....	80	Assistance Necessary.....	440
Black, C. E.: Chorion, Vesicular Degeneration of the.....	30	Beware the Promoter	442
Blood, the Alkalinity of the.....	518	Bland's Society	222
Book Notes, Trans. Ind. State Medical Society.....	332	Bogus Reformers	176
Bouffleur, A. I.: Goitre, the Treatment of..	368	Caution! Caution!.....	272
Bright's Disease, Medico-Legal Aspects of.	427	Come... ..	554
Bright's Disease, chronic, remarks on.....	291	Corresponding Members	409
Brower, D. R.: Some Considerations of Epilepsy.....	270	Diagnosis of Smallpox	408
Brower, D. R.: Alcoholic Inebriety.....	364	Failures Have Their Value.....	408
Brower, D. R.: A Newer Pathology of Epilepsy.....	12	Faith Healing	130
Butler, George F.: Therapeutics: Past, Present and Future	51	Faith Healing and the Law.....	131
Caput Obstipum Musculare	207	Jubilee Meeting	83
Catto, W. M., Biography of.....	27	Medical Journalism.....	223
Center, Chas. D.: Malaria, Variation in the Manifestation of.....	119	Medical Practice Act.....	222
Chapman, H. W.: Health Laws, etc.....	550	Of Assistance to Legislative Committee..	36
Chenoweth, W. T.: Post Hoc Propter Hoc, Chicken-pox, Why it is not.....	455	Organize, Unite, Centralize.....	274
Children, Atypic Malaria in, etc.....	122	Organization	554
Chorion, Vesicular Degeneration of the...	30	Physicians and their Families Indifferently Treated.....	174
Christian Science, etc.....	188	Professional Progress.....	83
Chronic Malaria, the Treatment of.....	124	Program of Annual Meeting.....	555-561
Corr, A. C.: Relations of Society, etc.132-179-225		Shall History be Repeated.....	273
		Some Comparisons	35
		Street Restaurants.....	273
		The Sanitary Conditions of Prisons.....	177
		The Preparation of Papers.....	224
		The Organization of the Profession.....	494
		The Society, the State Board of Health and the Laws	495
		The Arrangement of the Program.....	82
		Woodbury vs. Eddy.....	223
		Egan, J. A.: Chicken-pox, etc.....	455

Egan, J. A.: Unrecognized Smallpox.....	173	Laws, History of our Medical.....	542
Eisendrath, D. N.: Gastric Ulcers.....	254	Law, the Physician and the Medical.....	472
Elliot, A. R.: Remarks on Chronic Bright's Disease.....	291	Law, the Present.....	467
Engelman, Rosa: Children, Atypic Malaria in, etc.....	122	Laws, Relation to Medical Education and Practice.....	545
Empyema, Drainage and Irrigation of the Pleura in.....	474	Lewis, Denslow: Puerperium, the Surgery of the.....	99
Epidemic, Dixon.....	454	Lewis, H. F.: Maternal Impressions.....	202
Epilepsy, Some Consideration of.....	270	Lockwood, Chas. D.: Ambulatory Treat- ment of Fractures.....	477
Epilepsy, a Newer Pathology of.....	12	Locomotor Ataxia, Remarks and Diagnosis of.....	147
Etheridge, J. H., Biography of.....	240	Loose Body, in Joint.....	436
Erythromelalgia, or S. Weir Mitchell's Dis- ease.....	486	Malaria, Variation in the Manifestation of.....	119
Executive Committee, Meeting of.....	229	Mason, James S.: History of an Outbreak of Rabies with Clinical Report of.....	483
Eye, Malignant Tumors of.....	165	Massage, in Treatment of Glaucoma.....	485
Fairbrother, H. C.: Injuries of Scalp.....	526	Mastitis in Puerperal Women.....	489
Ferguson, A. H.: Adipose Tissue, an Etio- logic Factor in Hernia.....	245	Maternal Impressions.....	202
Fernald, W. J.: Criminal Abortion, etc.....	394	Maxwell, J. B. Chronic Malaria, the Treat- ment of.....	124
Fernald, W. J.: The Influence of Biological Research on Surg. and Med.....	264	McAnally, J. T.: Psychology vs. Medicine.....	306
Fischer, L. E.: Sanitary Measures.....	326	McKenna, H.: Observation on Operation of Symphysiotomy.....	199
Formaldehyde, a Poor Disinfectant.....	181	McLaughlin, W. K.: Schleich's Mixture.....	243
Formaldehyde, Disinfection with.....	571	Medical Legislative Committee, Report of.....	87
Fractures, Ambulatory, Treatment of.....	477	Medical Organization.....	330
Gall Bladder Surgery and Their Sequelæ, Report of Cases in.....	316	Medical Societies Committee, Report of.....	84
Gastric Ulcer, Unusual Case of Perforating.....	435	Members Attending Cairo Meeting.....	43
Gastric Ulcer, Direct Treatment of.....	245	Mind on Body, Influence of.....	533
Glaucoma, Direct Massage in Treatment of.....	485	Mitchell's, S. Weir, Disease of.....	486
Goitre, the Treatment of.....	368	Morton, A. J., Biography of.....	29
Goitre, Exophthalmic, Operative Treatment of.....	372	Movable Kidney.....	295
Griffith, B. M., Biography of.....	26	Myopia, Operative Treatment in High De- grees of.....	212
Griffith, B. B.: Bacelli's Method in Treat- ment of Tetanus.....	218	Nelson, C. S.: Dixon Epidemic.....	454
Grinstead, W. F.: Appendicitis.....	423	Nominating Committee, Organization of.....	128
Haight, A. T.: Operative Treatment in High Degrees of Myopia.....	212	Nominating Committee, Report of.....	171
Halstead, A. E.: Movable Kidney.....	295	Ovarian Tumor, Complete Prolapse of an.....	80
Hall, C. W.: Perforating Gastric Ulcer.....	383	Palmer, C. A.: Tuberculosis.....	482
Hamilton, J. B.: Biography of.....	22	Pancreas, Disease of.....	415
Hanging Drop, the.....	137	Patrick, H. T.: Remarks on the Diagnosis of Locomotor Ataxia.....	147
Harris, M. L.: Caput Obstipum Musculare.....	207	Patton, Ella M., Biography of.....	29
Hemorrhage from Gastric Ulcers, Surgical Treatment of.....	254	Pettit, J. W.: The Present Law.....	467
Henry, R. H.: Rational Therapeutics.....	159	Pitner, T. J.: President's Address.....	3
Heredity.....	481	Physician and the Medical Law, the.....	472
Hernia, Adipose Tissue a Etiologic Factor in Hernia, Imbrication Operation for Radical Cure of.....	211	Physician's Club.....	444
Herzog, M.: Perforation of Uterus, etc.....	383	Poliomyelitis, Anterior, Acute.....	150
Hillgard, G. E.: Spanish American War.....	538	Post Hoc Propter Hoc.....	195
Hunt, C. C.: Sciatica.....	419	Publication Committee, Report of.....	84
Hunt, C. C.: The Hanging Drop.....	137	Puerperium, the Surgery of the.....	99
Hurst, S. T.: Health Laws, etc.....	549	Psychology vs. Medicine.....	306
Hyde, J. Nevins.: Smallpox.....	342	Rabies, History of an Outbreak of.....	483
Impressions, Maternal.....	202	Rational Therapeutics.....	159
Influence, the, of Biological Research on Surgery and Medicine.....	264	Reed, C. B.: Eclampsia, Etiology of.....	71
Intestinal Auto-infection.....	529	Rivard, G. J.: Intestinal Auto-infection.....	529
Joint Mouse.....	436	Rooney, M., Biography of.....	27
Journalizing Trans. Committee on, Report of.....	126	Ross, J.: Heredity.....	481
Kibbie, H. C.: Medical Laws, etc.....	473	Salisbury, J. H.: Alkalinity of Blood.....	518
Kidney, Movable.....	295	Sanitary Measures for Smaller Cities.....	326
Kreider, Geo. N.: Journalizing Transac- tions.....	17	Scalp, Injuries of the.....	526
Kreider, Geo. N.: Two Affections of Knee Joint, etc.....	436	Scarlet Fever, Treatment of.....	157
Laws.....	550	Schleich's Mixture for General Anesthesia.....	243
Laws, Efficiency of Our Health.....	549	Schneck, Jacob: Stomatitis Materna.....	9
		Sciatica, Mechanical Treatment of.....	419
		Senn, E. J.: Ruptured Urethra.....	376
		Smallpox in Illinois.....	342
		Smallpox, Unrecognized.....	173-572
		Smith, J. W.: Uveitis.....	403
		Societies: Adams County.....	412-500-564

Aesculapian Society Wabash Valley.....	277	State Board of Health, Proceedings of..	81-438-457-458-492
Bond County Medical.....	232	Stettler, T. H.: Tuberculosis	403
Brainard District Medical.....	232-275-443	Stomatitis Materna.....	9
Bureau County Medical.....	275	Sudduth, W. Xavier: Culture, Psycho-Phys- ical.....	60
Champaign County Medical..	138	Surgery, Puerperal.....	113
Chicago Gynecological	275	Sutton, J. E.: Influence of Mind on Body..	533
Chicago Medical Examiners	442	Symphysiotomy; Observations on the Oper- ation of.....	199
Chicago Pediatric.....	562	Synovitis, Gonorrheal.....	436
Chicago Surgical Society	442	Tetanus, Treatment of, Bacelli's Method....	218
Central Illinois District Medical.....	275	Therapeutics, Rational.....	159
Clay County Medical.....	336	Therapeutics: Past, Present and Future...	51
Clinton County Medical	336	Thompson, T.: Mastitis in Puerperal Women.....	489
Crawford County Medical.....	498	Transactions, Journalizing.....	17
Decatur Medical	336-447-498-562	Transactions, Official..	14-84-126-170-216
Fulton County Medical.....	232	Treasurer, Report of.....	86
Kankakee County Medical.....	336	Tuberculosis, Pulmonary.....	403
Macoupin County Medical	276-567	Tuberculosis.....	482
McLean County Medical	275-336-412-562	Urethra, Traumatic Rupture of.....	376
Medical and Surgical Society of Western Illinois.....	413	Uterus, Partially Atrophied, etc., Perfora- tion of.....	383
Military Tract Medical	275	Uveitis, General.....	403
Morgan County Medical	231-412-443-568	Vaccination of School Children	493
North Central Illinois Medical.....	336	Van Hoosen, Bertha: Puerperal Surgery..	113
Peoria Medical	283-499-562	Wallace, F. E.: Disease of Pancreas.....	515
Pike County Medical.....	567	Water Supplies of Illinois, Investigation of.	573
Sangamon County Medical.....	338-413-449-501-565	Webster, Geo. W.: Prevalence of Alcohol- ism, etc.....	355
Schuyler County Medical	443	Wilder, W. H.: Malignant Tumors of the Eye.....	165
Springfield Medical Club	280	Wing, Albert: Acute Anterior poliomyelitis	150
Tri-County Medical	137	Worthley, H. S.: Treatment of Scarlet Fever.....	157
Vermilion County Medical	336-499		
Wabash County Medical.....	443		
Warren County Medical.....	336		
Will County Medical.....	232-279-413		
Winnebago County Medical	412		
Spanish-American War, etc.....	538		

ILLINOIS Medical Journal

The Official Organ
of the
State Medical Society



A Monthly Bulletin
Edited by the
Publication Committee

Printed by
THE ILLINOIS STATE JOURNAL COMPANY.

Entered in the Springfield Postoffice as Second-Class Matter.

Volume XLIX. }
Number 1. }

Ottawa, July, 1899.

{ Subscription, \$3 a Year.
{ Single Copies, 25 Cents.

TABLE OF CONTENTS.

ORIGINAL ARTICLES.

President's Address—Currents and Counter- Currents in Medicine—T. J. Pitner, M. D., Jacksonville	3
Stomatitis Materna—Jacob Schneck, M. D., Mt. Carmel	9
A Newer Pathology of Epilepsy—Daniel R. Brower, A. M., M. D., L.L. D., Chicago....	12
Journalizing the Transactions—George N. Kreider, A. B., M. D., Springfield.....	17
Vesicular Degeneration of the Chorion— Carl E. Black, M. D., Jacksonville.....	30

EDITORIALS.

Announcement	34
Some Comparisons.....	35
Of Assistance to Legislative Committee....	36

Proceedings of Cairo Meeting.....	14
-----------------------------------	----

BIOGRAPHIES.

J. B. Hamilton.....	22
J. H. Etheridge.....	24
B. M. Griffith.....	26
W. M. Catto	27
M. Rooney.....	27
Ella M. Patton	29
A. J. Morton.....	29
Correspondence—C. E. Black, M. D., Jack- sonville.....	36
Society News.....	38
State Items.....	40
List of Members Attending Cairo Meeting.	43
Chicago News Items.....	44
Medical Societies of Illinois	46
Officers of State Society.....	48

LIST OF OFFICERS AND PLACES OF MEETING SINCE THE ORGANIZATION OF THE SOCIETY.

YEAR.	PRESIDENT.	VICE-PRESIDENT.	SECRETARY.	TREASURER.	PLACE OF MEETING.
1850*	Rudolphus Rouse.....		Edwin G. Meek		Springfield.
1850	William B. Herrick.....	Rudolphus Rouse.....	Edwin G. Meek.....	John A. Halderman	Springfield.
1851	Samuel Thompson	E. McArthur	H. Schoemaker	E. Rouse	Peoria.
1852	Rudolphus Rouse	Thomas Hall	E. S. Cooper.....	Edward Dickenson	Jacksonville.
1853	Daniel Brainard.....	C. N. Andrews	H. A. Johnson	A. B. Chambers	Chicago.
1854	C. N. Andrews	Samuel Thompson	H. A. Johnson	N. S. Davis	La Salle.
1855	N. S. Davis.....	E. R. Roe.....	E. Andrews.....	J. V. Z. Blaney.....	Bloomington.
1856	H. Noble.....	T. D. Washburn	N. S. Davis	J. V. Z. Blaney.....	Vandalia.
1857	C. Goodbreak	A. D. McArthur	H. A. Johnson	J. V. Z. Blaney.....	Chicago.
1858	H. A. Johnson.....	William Lyman	N. S. Davis	J. W. Freer.....	Rockford.
1859	David Prince.....	H. W. Davis.....	N. S. Davis	J. W. Freer.....	Decatur.
1860	Wm. M. Chambers	T. K. Edmiston	N. S. Davis	J. W. Freer.....	Paris.
1863	A. McFarland.....	A. H. Luce	N. S. Davis	J. H. Hollister.....	Jacksonville.
1864	A. H. Luce	J. M. Steele	N. S. Davis	J. H. Hollister.....	Chicago.
1865	J. M. Steele	F. B. Haller	N. S. Davis	J. H. Hollister.....	Bloomington.
1866	F. B. Haller	L. T. Hewens.....	N. S. Davis	J. H. Hollister.....	Decatur.
1867	S. W. Noble.....	D. W. Young	N. S. Davis	J. H. Hollister.....	Springfield.
1868	S. T. Trowbridge.....	J. O. Hamilton	N. S. Davis	J. H. Hollister.....	Quincy.
1869	S. T. Trowbridge.....	J. O. Hamilton	N. S. Davis	J. H. Hollister.....	Chicago.
1870	J. V. Z. Blaney	G. W. Albin	T. D. Fitch	J. H. Hollister.....	Dixon.
1871	G. W. Albin	John Murphy	T. D. Fitch	J. H. Hollister.....	Peoria.
1872	J. O. Hamilton	T. Worrell	T. D. Fitch	J. H. Hollister.....	Rock Island.
1873	D. W. Young	T. D. Washburn	T. D. Fitch	J. H. Hollister.....	Bloomington.
1874	T. F. Worrell	E. L. Holmes	T. D. Fitch	J. H. Hollister.....	Chicago.
1875	J. H. Hollister	Wm. P. Pierce	T. D. Fitch	Wm. E. Quine	Jacksonville.
1876	T. D. Washburn	J. L. White.....	T. D. Fitch	J. H. Hollister.....	Urbana.
1877	T. D. Fitch	S. H. Birney	N. S. Davis	J. H. Hollister.....	Chicago.
1878	J. L. White	E. P. Cook	N. S. Davis	J. H. Hollister.....	Springfield.
1879	E. P. Cook	J. S. Whitmire	N. S. Davis	J. H. Hollister.....	Lincoln.
1880	Ephriam Ingals.....	G. W. Jones	N. S. Davis	J. H. Hollister.....	Belleville.
1881	G. W. Jones.....	William Hill	S. J. Jones	J. H. Hollister.....	Chicago.
1882	Robert Boal.....	A. T. Darrah	S. J. Jones	J. H. Hollister.....	Quincy.
1883	A. T. Darrah	L. G. Thompson	S. J. Jones	J. H. Hollister.....	Peoria.
1884	E. Andrews	D. S. Booth	S. J. Jones	Walter Hay	Chicago.
1885	D. S. Booth	S. C. Plummer	S. J. Jones	Walter Hay	Springfield.
1886	William A. Byrd	W. T. Kirk	S. J. Jones	Walter Hay	Bloomington.
1887	William T. Kirk	Elias Wengen	D. W. Graham	Walter Hay	Chicago.
1888	William O. Ensign	C. W. Earle	D. W. Graham	Walter Hay	Rock Island.
1889	C. W. Earle	P. H. Oyler	D. W. Graham	T. W. McIlvane.....	Jacksonville.
1890	John Wright.....	L. P. Mathews	D. W. Graham	T. W. McIlvane.....	Chicago.
1891	John P. Mathews.....	Charles C. Hunt	D. W. Graham	George N. Kreider	Springfield.
1892	Charles C. Hunt	E. F. Ingals	D. W. Graham	George N. Kreider	Vandalia.
1893	E. Fletcher Ingals	Otho B. Will	D. W. Graham	George N. Kreider	Chicago.
1894	Otho B. Will	D. R. Brower	J. B. Hamilton.....	George N. Kreider	Decatur.
1895	Daniel R. Brower.....	A. C. Corr	J. B. Hamilton.....	George N. Kreider	Springfield.
1896	D. W. Graham	J. M. G. Carter.....	J. B. Hamilton.....	George N. Kreider	Ottawa.
1897	A. C. Corr	J. M. G. Carter.....	J. B. Hamilton.....	George N. Kreider	East St. Louis.
1898	J. M. G. Carter.....	T. J. Pitner	E. W. Weis.....	George N. Kreider	Galesburg.
1899	T. J. Pitner	H. N. Moyer	E. W. Weis.....	George N. Kreider	Cairo.

*Preliminary Convention.

EXPLANATION.—No meeting was held in the years 1861 or 1862, "on account of the large number of members engaged as surgeons in the volunteer army of the United States."

Until the meeting of 1869, it was the custom to elect officers the first day, and for the President to have charge of the meeting at which he was elected. Hence Dr. Trowbridge seems to have presided over two meetings, although elected President but once.

The Illinois Medical Journal.

The Official Organ of The Illinois State Medical Society.

VOL. XLIX.
No. 1.

Printed at Springfield, July, 1899.

{ SUBSCRIPTION
\$3.00 A YEAR.

PRESIDENT'S ADDRESS.

T. J. PITNER, M. D., JACKSONVILLE.

CURRENTS AND COUNTER CURRENTS IN MEDICINE.

It is exceedingly gratifying to the members of the medical profession here assembled this evening to have with us so large a number of the citizens of Cairo. We take it as an expression of a most cordial welcome to your city which I assure you gives us great pleasure. It may also be interpreted as an indication of public interest in the profession and a recognition of their contributions to the common weal.

It is my purpose this evening to remark upon a few matters pertaining to the practice of medicine which I trust will also be of some interest to you all.

While cogitating along certain lines with the view of presenting something appropriate to this occasion and while my essay was yet quite embryonic, there came a message from our stirring Secretary asking for the subject of my address by return mail.

The printer was waiting for it. I had no name for the bantling. Never supposed a name would be wanted. I thought my exercise would be put down as the President's Address, which would enable me to strike out with a free lance in any direction unhampered by a heading. Those of you who know that Secretary can readily see that it was better for me to send him a topic and to do it "instantly." So the subject as it stands was forthwith sent, being similar to the title of an address delivered before the meeting of the Massachusetts Medical Society about forty (40) years ago by our distinguished Colleague, Dr. Oliver Wendell Holmes, a phrase which I thought as aptly as any short state-

ment conveyed in a general way an idea of the remarks I wished to make at this time.

Those of you who may have read the address alluded to, which forms the title of a book of essays by the illustrious Author, will not be reminded of the old saying that great minds run in the same channel. We may both speak of currents, medical thought and practice, but the channels cut by the keen mind of the great master will be found somewhat different from the skimmings of the Illinoisan. Dr. Holmes spoke of the Currents and Counter Currents in the Science of Medicine. My purpose this evening is to consider the subject rather on the practical side although some reference to theories is necessarily involved.

It is fitting that at an assembly like this of the members of any society that they now and then take account of stock—to use a business phrase—or like the mariner, take a reckoning—study the currents in which they are moving—consider the direction of their craft—look to the tendencies of the time.

Let us this evening consider a few of the facts and forces which make for progress in Medicine; also some of the hindrances and obstacles in the way with certain retrograde tendencies. Unfortunately in all that pertains to humanity, progress is not uninterrupted. In computing the forces that move men the "personal equation" is a prominent factor. It is capricious in action, giving uncertain results. People in general are perhaps as largely influenced by egotism, avarice, party spirit and prejudice as by reason and good judgment based upon a wide induction of facts. But far below the surface in society with all its noise and froth, its arrogance and self-seeking with the clamor of conflicting interests, the great undercurrent of ac-

cumulating knowledge moves silently and steadily onward with ever increasing volume.

Standing here on the banks of the majestic Mississippi, where it is reinforced by the far reaching arm of the Ohio, which together in one great stream sweep on toward the broad ocean, may we not see a type representing to us the onward movement of a great profession composed of thousands of thoughtful, earnest students who with increasing activity are advancing toward the wide sea of truth whose boundaries are ever expanding in response to the researches of an army of investigators into the deeper secrets of nature.

Let us for a moment consider the character and fundamental principles of our profession. The practice of medicine is as old as the history of the human race. We find its basis in the instinct of self-preservation. We are so constituted that we cannot bear suffering without seeking aid and one cannot see his fellows suffering, especially those in his own family, without attempting to relieve them. The first question that comes to him is, what is the trouble and what is best to be done. The causes and nature of diseases are usually not apparent. The one who would gladly extend help does not know what is best to do. Who is likely to know? Naturally and obviously he turns to one who for years has made a study of disease and who has made it his life work to aid the sick. One in this situation exercises the same common sense in calling a physician that he does when he goes for a carpenter to build his house or a blacksmith to shoe his horse. For these and other good reasons there have always been and always will be physicians (we are with you to stay, my friends). It has been said the proper study of mankind is man. This study so worthy the attention of all is essential to the doctor. Everything which affects man in his constitution and environment is of interest and importance to the physician. Hence he must not be narrow in his field of observation and study. Man is affected by many

conditions and forces within and without himself. None of these may be ignored by the qualified physician. Before his patient he is confronted by many facts and factors. Some quite obvious, others equally important are obscure. In the presence of these hidden forces and the difficult problems presenting, together with the vital interests involved, he must be modest, truthful, earnest, inquiring, devoted. Such is the character and spirit of the profession. Hearty allegiance to the lofty principles essential to the physician as announced by the great apostle of medicine Hippocrates himself, has been given by every true disciple of Esculapius from that day to this. This is baptism into the true church of medicine, which is not a school, or system of medicine and has no distinctive name. Those who are qualified and worthy to enter are simply physicians. Those who don't enter this broad temple of learning and healing or who depart from it must have names to distinguish them—they adopt some pathy. The young doctor who has fully entered this sacred temple and caught the spirit of devotion to the profession finds himself imbued with a high sense of honor in his intercourse with his colleagues and his patients; high aims as to the acquisition of knowledge pertaining to his work, a desire to contribute what he can to the common stock of knowledge and experience and a purpose to be and to do something worthy his vocation. He does not let the dollar get so close to his eyes as to shut out the light of science. The golden eagles don't deflect him from his straightforward course toward his goal nor does the cold metal lie so close to his heart as to chill its responsive throbs to the cry of a suffering fellow although he may be without a dollar to reward the service. Such principles have animated and dominated the profession of medicine through all the ages and have been the moving forces in its grand achievements.

These principles and standards have sometimes been reduced to a Code of Ethics

which give them definition and tend to a clearer view and more considerate conduct, ministering to the best interests of doctor and patient. These high principles and interests need definition and safeguarding; need reiteration and emphasis as well, because the commercial spirit and the current of sordid ambition constantly assail the struggling physician tending to sweep him off his solid footing of principle and submerge him in selfishness and dishonor. It is said there are tricks in all trades. They even creep into honorable professions. Doctors, regular doctors, are human and liable to swerve from the line of duty and honor and resort to some extent to the devices of quacks who seem so successful in plying their arts. The temptation is sometimes great to adopt their methods of deception. Hence the voice of the profession in such assemblies as this should be lifted against such practices and all obliquities of conduct.

Medical Ethics are simply the statement of honorable procedure in circumstances pertaining to the relations of physicians with each other and with their patients. It is an application of the principle of the Golden Rule to professional life. A definition of what is just and right, in the peculiar relations of the physician.

These circumstances cannot be readily comprehended by laymen. Hence they often misunderstand us and say doctors are sticklers for etiquette and hypersensitive. A physician does quickly detect divergence from honorable conduct which would not be known by an outsider and of course his sense of honor compels him to condemn its breach. He cannot and ought not condone deception or trickery in practice. The tendency in some quarters, particularly noticeable in New York City, to ignore the Code of Ethics must be regarded as a retrograde movement adverse to the higher interests of the profession. There may be reason for a restatement of some parts of the code, but no statement can be so complete as to cover all points or please every one in all particulars. In the main it is right and

expresses the deliberate convictions of the great body of the profession. It stands for what is highest and best and merits our allegiance and hearty support.

Another Counter Current within our profession is the growing tendency to prescribe nostrums. Many preparations, the composition of which is not definitely known, are used by regular physicians. Of late years this country has been flooded by a crop of products from very enterprising German chemists, sold under patents of fancy names. We cannot now do more than to call attention to this widespread evil. The practice must be condemned as un-professional.

Another tendency of the time which calls for protest is the rush among our young doctors for specialties. Specialism not founded on a wide, general knowledge of medicine: a knowledge made available by direct observation and practice for years, has no legitimate basis. The human body is a unit. It is likely to be affected in many of its organs and functions at the same time. A general morbid process with some local disease often occurring together. A variety of factors are to be considered and understood to treat properly what may appear to be a local disease only. Not to know these predisposing and general conditions is to be disqualified as a specialist.

This is not decrying legitimate specialism. There is rational ground for a physician limiting his practice to surgery or any kind of operative work where skill so largely depends upon manipulation perfected by practice. Beyond surgery and the surgical specialties, a physician well grounded in general knowledge may properly choose to limit his work to special departments of medical practice, although these medical specialties are in the nature of the case less called for than the surgical, and in their practice it is all the more required that the specialist keep well up in general medicine. A broad knowledge and limited work, if you please, but never special

practice on knowledge limited to the parts treated.

Another evil of our time calling for loud protest is the multiplication of medical schools and a shocking scramble and bidding for students in some of them. These little schools cannot be well equipped to do the thorough work now required for qualified physicians. We can see no good reason for such movements. In seeking for reasons we cannot avoid suspecting sinister motives. It is often openly said, we fear with too much truth, that the promoters of some of these organizations aim to use the school as a means of advertising themselves. Think of the influence of a school where the professors are of that stripe?

How are the students living in such foul atmosphere to breathe in the true professional spirit? Can they avoid being largely infected with the mercenary motives? This is the saddest and worst feature of this miserable business. The streams that flow from these corrupt fountains will seriously affect our ranks. Will the sewerage be disinfected when it flows out in the broad current of professional life? Yes, we believe it will, largely. But how much wiser to keep the fountains pure. Shades of Hippocrates may we not be delivered from this degradation!

The most characteristic feature of medical thought and activity of recent years is the prevalence of the scientific method of investigation. Formerly, various schools and systems flourished founded more on speculation than observation of facts. Various theories were advanced and valiantly maintained by their advocates, which in turn gave way to other doctrines. Individuals exploited their own tenets and paraded their hobbies far more than now. As science advances there is less and less ground for speculative systems or diverging schools of medicine.

Fifty years and more ago Homeopathy flourished and the doctrines of Hahnemann were accepted by large numbers of medical men. Hahnemann proclaimed the doctrine of *Similia Similibus Curantur* as nature's

law of Cure—the only law of cure. Now the doctrine of Similia is not held as an exclusive law of cure by the homeopaths themselves. It is no more than a suggestion that may assist in the selection of remedies to meet certain symptoms. The other distinguishing feature of homeopathy was the use of doses infinitely small. So small for example that if one drop of a saturated tincture were mixed directly with the waters of the Atlantic ocean it would still not begin to reach the prescribed dilution. This has now ceased to be the practice of homeopaths to any extent. Hahnemannism has passed. Homeopathy is off its original base. It is drifting; with increasing inclination to the main current of scientific medicine.

Eclecticism is another side current in medicine. It arose as a protest against the heroic treatment in vogue years ago, particularly the excessive use of mercury and other minerals. These were excluded from its armamentarium medicorum. It is not exclusive now, and there is no basis for a separate name and organization. In both of these schools of medicine the text books of regular authors are used almost entirely. In practice they often use certain remedies not commonly prescribed by regular doctors. But these details should not debar them from fraternity with us. The profession is liberal. No man is called to account for the remedies he may use. There is no censorship of practice amongst us. That which we insist upon is simply that a medical man should know his business and be honest. These schools are both now doing more and better work in medical teaching in the sciences which form the basis of legitimate medicine. All that is now required to complete fraternity is for them to haul down their sectarian flags and sail under the single banner of "Physicians." This is not easy for them to do. Pride stands in the way. Also some vested interests. Some distinctive names carved on entrances to certain colleges and hospitals. But there is no other strictly honest or logical procedure for them.

The Homeopathists have already taken in their signs. When I began practice, nearly all doctors of that school had "Homeopathist" appended to their names on the office sign. Now they are not seen. It is simply "Dr. Smith." The same reasons exist for removing the name elsewhere and everywhere. We hope they will see and abandon their inconsistent position and come into the common fold. We need all true and qualified men to stand together to fight the sharks.

Now let us notice briefly the small fry who practice outside all recognized schools of medicine. They are in very shallow water, whirling round in little eddies near the banks of the stream and some in dirty pools of stagnant water—the habitat of wiggle-tails. Were we considering the subject this evening from the scientific standpoint, we should give no consideration to the various fads in practice which are constantly coming to notice and after a brief time passing out of sight. Were it not for the serious consequences of trifling with health and life they would not furnish occasion for remark.

But these epidemic delusions and frauds fleece and cripple many people whose health is their capital. With health and means gone, they are stranded. Unfortunately we have no laws adequate to suppress fakirs and impostors in their nefarious depredations. The masses of the people are ignorant and easily deceived in regard to the nature of disease and means of cure. What they want is relief, no matter from what source it may come. They submit to those who pretend most and promise most. There is no field so rich for the impostor as this people, taken in by extravagant pretensions and the most positive promises of cure, with all the wiles and tricks for impressing and deceiving their victims so well known and skillfully plied by the whole tribe of quacks.

The credulity of the public in these matters is amazing. It does seem to be true as Barnum said that the American people like to be humbugged. Many people do

not stop to investigate the claims of those soliciting their patronage when sick. In the first place they seem not to have observed that the honest, competent physician never solicits patronage.

That is a mark that distinguishes the sheep from the goats. Then they do not bear in mind the long years of study that are required for a qualified physician, also the education necessary to fit him to begin the study of medicine. To the unthinking, a person spending four months at a school of osteopathy is as well qualified to treat them as one, more intelligent to begin with, who spends four years in the study of scientific medicine. Their impressions of medicine are formed from the reading of circulars, booklets or journals advertising their particular methods of treatment and parading their cures. These find it desirable to make a show of learning and explain to the dear reader their new and wonderful treatment—always using the verbiage of profundity—appealing to the sense of the mysterious—a pervading feeling amongst unintelligent people respecting medicine and modes of curing disease. There must be something profound and wonderful or they will not take the bait. Hence they are impressed with the trick of the discovery and replacing of dislocated bones and tendons in various parts of the body. This satisfies them that the hidden cause of their troubles has been found and remedied and prepares their agitated minds and jerky nerves for the soothing rubbings of slick fingered manipulators. Did time permit I would be glad to give some extracts from a book of lectures on the principles of osteopathy published a year ago at Kirksville, Mo., prepared for the disciples only, which I have recently read. The lectures are a mere jumble of words without logic, system or facts. There is utter ignorance of the diseases mentioned. Causes of disease of various organs as the heart and lungs are found in supposed dislocations of ribs, vertebrae, etc. Much stress is placed on injuries to ascertain "centers"—which are stated as not anatomic or physiologic nerve

centers, but "osteopathic centers." Points where it is claimed punching and manipulation will cure the disease by removing the causes of well known diseases both organic and functional.

The "advantages" of these schools of osteopathy are widely advertised, appealing strongly to the unemployed. By taking a course of a few months they are assured of a lucrative practice at once. The lectures may be taken by paying a small part in advance and the student giving a note for the remainder to be paid from the first fruits of their work after being turned loose on the public. But some one may say: "I was cured and I know of others benefited by their treatment." O yes; people get well often under any scheme of cure. Nature is good. Besides there is benefit in massage in certain cases as all physicians know. But as that is so generally known and practiced by others it will not be considered by the laity as anything remarkable. So plain honest massage will not answer their purposes. The system emanating from the great Missouri Still like all others of his class, must have something occult about it to catch the unwary. So the hocuspocus reducing dislocated joint is invented to satisfy the desire for something new and wonderful.

There is another current claiming celestial origin that sweeps through the upper deep all the way from Beacon Hill. The shining star of the new light from Boston is a fair woman. She radiates from an atmosphere of culture with a halo of the supernatural about her. She appeals to the sentimental and the visionary of her sex, and the sterner sex are sometimes enchanted by her mystic spell. By a strange misnomer this system of cure is called Christian Science. It would be an easy matter to show from Mrs. Eddy's book that her teachings are not christian but unchristian—degrading Christ. And as for science there is not a suggestion of the scientific spirit or method in it, although she pays a glowing tribute to the progress of science. It is silly to apply the term Science to the vagaries of Mrs. Eddy. All

sorts of fancies are strung upon the one truth, that the mind has influence on the body and that in some functional diseases, mental states may help the case. But what has that to do with the destructive work of the tubercular bacillus, or the onward course of typhoid fever. To exalt one truth above all others or to deny demonstrated facts, is trifling with reason and nature. To do so shows a prejudiced and perverted mind incapable of sound judgment on any matter pertaining to the monomania. But says one: Christian Scientists belong to the educated and higher classes. O yes! high in the air. Mrs. Eddy lifted from earth by transcendental vapors, blown and tossed by the upper currents of etherial speculation goes ballooning in the sky. We leave her there. "To the solid ground of nature trusts the mind that builds for aye."

Now we leave the isms, fads and frauds and touch upon some points pertaining to progress of medicine; a more agreeable view. First, as to medical education. The requirements for graduation in medicine are at least double what they were twenty years ago. Then most schools required but two years of study with attendance at two courses of lectures of five or six months duration. Now four years are required with an average of eight months each.

We Illinoisans may well felicitate ourselves on this grand advance movement because the Illinois State Board of Health was mainly influential in bringing about these extended courses of instruction, by refusing to recognize the diplomas of colleges whose standards were below that which was required of medical colleges in good standing.

The profession of Illinois during the recent session of the legislature has done good work in securing some advances in legislation in regard to the practice of medicine, which increases the powers of the State Board of Health and furnishes additional safe guards against fraudulent practices. The successful efforts of our committee on legislation with other medical friends deserve our hearty thanks.

We do not hope to suppress quackery,

but we may restrict its operations, make it more hazardous and put it more under the ban of disrepute.

As to the advances in the science and practice we can here speak only in brief, merely naming a few instances. The great scourge of small pox has been banished entirely, where regulations have been strict, i. e. where vaccination and revaccination has been enforced as in the armies of Europe and America, and yet there is an insanity that raves against compulsory vaccination.

The researches in biology and bacteriology have added abundant valuable facts to our resources in combating disease and in preventing its spread. For example; the prevalence and mortality from another wide spread destructive disease, tuberculosis, have been decidedly diminished.

The mortality of diseases of infants twenty-five years ago was very great. About fifty per cent. of all born, died before they were five years old. Now it would be safe to say the mortality is reduced to twenty-five per cent.

The terrible scourge of diphtheria has been shorn of half its horrors by a new and specific treatment, serum therapy, and this has been accomplished in the last five years, but the greatest honor and credit is due the profession for their unceasing activity in advancing knowledge of means for the prevention of disease. As a result of which knowledge, the average of human life in civilized countries has been extended fully ten years.

STOMATITIS MATERNA.

BY JACOB SCHNECK, M. D., MT. CARMEL.

Nursing sore mouth has been one of the most constant, as well as one of the most obstinate, forms of disease with which I have had to contend in the practice of medicine. This has been especially surprising to me, because many of our leading text-books are entirely silent on the subject, or refer to it in the most accidental way. I

have examined several hundred volumes of the most reliable text-books and periodicals that have been published during the last thirty-five years, and find this ailment referred to and described as a separate disease by only a few authors. G. B. Wood, (*Practice of Medicine*, Vol. 1, p. 612, 1866), W. H. Byford, (*Diseases of Women*), p. 599, 1867), N. S. Davis, (*Practice of Medicine*, p. 496, 1884), and C. B. Johnson, (*Transactions of the Illinois State Medical Society*, p. 290, 1894), are the most important. From these sources I learn that this disease was first defined and described by Dr. E. Hale in 1830 in the *Transactions of the Massachusetts State Medical Society*; that about 1853, Dr. Austin Flint, Sr., gave the name "*Stomatitis Materna*" to this disease in an article in the *Buffalo Medical and Surgical Journal*; that for a period of about thirty-five years from the publication of Dr. Hale's article the periodical literature contained occasional reports on this subject, mostly by Western men and that very few of the text-books of this period make any mention of it. During the past thirty-five years the subject has almost disappeared from the current medical literature of the day, the principal exceptions being the four articles mentioned above.

The disease is most common during the nursing period, but often occurs in the pregnant condition; and some women, even among those who never were pregnant, suffer from slight attacks during the menstrual period. It may make its first appearance in a patient during the pregnant condition, or not until after she has begun to nurse her child. It may continue for many months after the child has been weaned. The immediate cause of the disease in the majority of cases is maternity; while the predisposing and contributing causes do not appear to be definitely settled. But anything which exhausts the physical forces, as grief, great anxiety, long continued overwork, sadness, excessive sexual intercourse, malaria, climate, filthy surroundings, all tend to the production of the disease. The principal predisposing causes are anæmia,

neurasthenia, heredity and nationality. No one of the above conditions is adequate to produce the disease; it requires a combination, several or all of them. Anaemia alone cannot be a cause, as it often occurs in large rosy-cheeked, plethoric women; but usually in time they became anæmic from the depressing effects of the disease.

Nationality does not appear to have any important influence. My patients may be divided into three classes in this regard, (a) German and English women of foreign birth; (b) their daughters who were born in this country; (c) women whose ancestors have lived in America for several generations. These three classes have been about equal in numbers among my patients and I have found them equally subject to the ailment.

Heredity appears to have considerable influence. It has not been uncommon to see several members of the same family suffering from this disease: as two sisters, the mother and a daughter, and in one instance the mother and her three daughters.

Neurasthenia is an important predisposing cause. Many of my patients have been of this type. Malaria has not been a common complication or cause, although we usually have malaria at all seasons of the year. Climate appears to be a very important factor in the causation. I am led to this conclusion from the fact that this disease is so seldom mentioned by medical authors, who practice in the Eastern states. The majority of physicians who have written on this subject of recent years have been practitioners in the middle and central states, while the physicians residing in the Eastern states, and who have written the bulk of our text-books, appear to know very little about this disease as an entity from personal experience. Wood's article in his work on practice, is compiled largely from articles written by Western men. The physical elements of climate which are of greatest importance, in regard to the health of human beings are humidity, heat and variety. The high range of temperature to which the human body may easily become

accustomed is surprisingly great; provided, it is often interrupted and not accompanied by excessive humidity. It is the continuous high temperature which most rapidly exhausts the human system. When to seasons of uninterrupted high temperature is added great humidity, we have just those conditions which render a locality the most exhausting and uninhabitable. Heat becomes important as a factor in the causation of disease only when accompanied by excessive humidity. The hotter the air, the more moisture it will hold.

Excessive moisture in the atmosphere retards perspiration and favors exudation through the mucous membrane of the alimentary tract. This, in combination with enforced diminution of exercise forms a double cause of physiological disturbance. The blood is not properly purified, and septicæmia and spanæmia ensue. Add to these conditions a rich loamy soil, and the consequent rank vegetation, and we are sure to have a third element evolved—miasm.

Travelers in Africa, after ample experience, formulated these facts by saying: "Where there is water and something can grow, there the climate is murderous; where the climate is healthful, there is no water, and nothing can grow." In the central and southern portions of the Mississippi Valley and its tributaries, we have all these conditions to contend with, especially along the river courses: (1) A low altitude; the majority of our river beds are less than five hundred feet above sea level. (2) During the summer season long periods of continuous high temperature, both day and night, the greater portion of this immense region is too far north to feel the influence of the gulf breeze, and too far south to be benefited by the cool winds from the lake regions. (3) A high degree of moisture in the atmosphere; the majority of our rains in summer are followed by a hot sultry atmosphere. (4) A remarkable abundance of luxuriant vegetation. After more than thirty years of careful study of the flora of the Mississippi Valley, I am impressed with the fact that for luxuriance of growth,

abundance of species and profusion of individuals, this flora has no equal on the North American continent. This abundance and luxuriance is due to the favorable climatic conditions mentioned above and to the nature of the soil. The soil also is made up largely from the deposits left by the annual inundations along our river courses, producing a loamy soil rich in vegetable mould. These conditions induce our principal forms of ailments, malaria and diseases of the mucous membranes of the alimentary canal and of the lungs. Authorities on climatology and demography are unanimous in the belief that in regions where there is the greatest rainfall, there acclimatization is the most difficult, because of the great prevalence of malaria and diseases of the digestive organs, lungs and kidneys; especially the catarrhal forms.

I find the following under the heading "Aphthous Stomatitis" on page 324, Vol. 11, Pepper's System of Medicine: "Excessive humidity of the atmosphere is assigned as a prominent exciting cause of the disease in some countries. This is especially the case in Holland, where it often exists epidemically. The confluent form at these times is said to attack parturient woman principally (Kestler). Inundations, not only in Holland, but in Hayti, Porto Rico and in the United States, are sometimes followed by an epidemic of aphthous stomatitis. It is believed that the emanations from decaying animal and vegetable matters, left ashore on the reflux of the waters, produces the morbid conditions, which constitute the predisposing causes under such circumstances."

The disease is usually accompanied by uterine ailments of a more or less severe character which may in some instances have a causative relation.

Stomatitis materna is an affection of the mucous membrane of the digestive and respiratory organs. The free discharge from these surfaces induces the emaciation and depression. In my experience I have found that the disease is more likely to occur in primiparæ; that is, a woman who has suf-

fered from this disease during her first maternity period occasionally escapes it in her future child bearings, but in the majority of instances it returns with each succeeding pregnancy often in the first month, and it may be the first sign by which she is warned of her pregnant condition. On the other hand, if it does not occur during the first maternity period, it seldom is present in subsequent similar conditions. The age of the person at the time of her first pregnancy has little if any causative influence.

Previous good health is no guarantee against this disease. Many of my cases have been in persons who were rugged women previous to marriage. It occurs fully as often in those who are inured to hard work, as in those who have been brought up in the school room during most of their girl-hood days, or have otherwise done little or no manual labor.

The symptom which almost invariably announces the onset of the disease is a raw burning sensation at the margin of the tongue. In some instances this is so severe that the patient has a constant dread of eating; even air if forcibly drawn through the mouth, makes the tongue feel as if it were on fire. Victuals and even fresh water cause a hot burning sensation in the mouth, and especially on the tongue when the disease is well advanced. With this condition there is free discharge of a thick, watery saliva. Later, the whole mouth feels raw and burns when food or drink is taken.

An examination shows the mucous membrane of the mouth to be a bright red color and the edge of the tongue, at the sides deeply fissured. The rhagades run parallel with each other and across the edge of the tongue, or in the direction from the floor to the roof of the mouth.

Frequently there are also found numerous rodent ulcers, especially on the inside of the lips and cheeks; and occasionally on the tongue. On examining the tongue closely with a magnifying glass it is found to be smooth, the papillæ prominent and unusually red. In places the tongue will appear to be denuded of epithelium, especially at

the tip and along the edges. In some instances the whole mucous membrane of the mouth, nose, throat and even the Eustachian tubes and middle ears become seriously involved. The tonsils and salivary glands become tender and swollen.

This condition continues as long as the disease lasts, being at times better, then worse; occasionally almost disappearing for a few days to return with greater severity. If not controlled, the soreness and burning sensation extend to the throat and lungs. The pain is always increased by food and drink, so much so that they are often not taken until driven to it by hunger or thirst. In many instances after this condition has continued for a variable time, the disease extends to the mucous membrane of the stomach and intestines, and diarrhoea follows. The discharges consist principally of a foamy liquid material and unassimilated food. In this stage of the disease, the diarrhoea is often uncontrollable, frequent evacuations continue to occur even while full doses of opium and astringents are being administered.

In other instances, especially where there is a predisposition to lung diseases, pharyngitis, laryngitis, bronchitis and finally pulmonary tuberculosis may be developed.

The treatment must necessarily be palliative and radical. Many cases can be held in abeyance, if not cured, by the faithful use of tonics and mouth-washes. Of tonics, strychnia, quinine, cod-liver oil, and the hypophosphites stand at the head of the list, and in the order named, in my experience. The mouth-washes are of little permanent value and should be of a mild soothing nature. Chlorate potash, carbolic acid and the vegetable astringents, as tannic acid, catechu, hydrastis, etc., in non-irritating quantities are the best. The ulcers are best treated by a local application of sulphate of copper, or better, exsiccated alum.

From what has been said above as to the climatic cause of the disease a change of climate should be an important remedy, and such it undoubtedly is. I have known the disease to be entirely checked by a change

of a few hundred miles. If the disease exists during pregnancy and all these remedies have failed and the mother's strength is constantly growing less, then it becomes our duty to institute a more radical treatment, and terminate pregnancy artificially, and this should be done before the mother's strength has been too much reduced to endure the ordeal of artificial labor. This measure is especially urgent when there is an unusual amount of distention of the abdomen, due to dropsy of the amnion—not an uncommon complication.

If the disease occurs after accouchement, and cannot be controlled by careful, persistent treatment, the child must be weaned, before irreparable damage has been done to the mother's health. Milk, eggs and the meat soups and extracts are the best articles of diet and are better borne than starchy and other vegetable foods.

Dr. N. S. Davis, Sr., gives the best clinical description of the disease that I have found. He believes the disease results from the abstraction from the mother's system during lactation and pregnancy, of the phosphatic compounds and the chloride salts. As a result of this conclusion, he strongly recommends the syrup of the hyphosphites or the lacto-phosphate of calcium and chlorate of potassium.

A NEWER PATHOLOGY OF EPILEPSY.

BY DANIEL R. BROWER, A. M., M. D., LL. D.
Professor of Mental Diseases, Materia, Medica
and Therapeutics, Rush Medical College;
Professor of Nervous Diseases, Northwestern
University Woman's Medical
School, Chicago.

Epilepsy a disease known and easily recognized since the most ancient times by its clinical history, is yet but little understood. Its etiology, pathology and treatment are far from being settled. An early theory of pathogenesis was the medullary, proposed by Marshall Hall and elaborated by Schroeder Van der Kolk, who defined epilepsy as a disease characterized by a heredi-

tary, congenital or acquired exaggeration of the reflex activities of the medulla oblongata. This theory serves to account very well for all the manifestations of the epileptic attack, except the psychical. But this theory since the marvelous development of cerebral localization has given place to the cortical theory first proposed by Hughlings Jackson (1863). This leaves none of the epileptic symptoms unexplained and yet no one can doubt the participation of the lower centers in the explosive phenomena; and further, no one can question that lesions of the medulla alone may produce convulsions. But the ordinary idiopathic epileptic phenomena with the aura, the loss of consciousness, the emotional and intellectual, the motor and the sensory manifestations, all point to the cortex as the seat of the beginning of the attack, and the explosion that here takes place soon gives rise to others in the lower centers. The morbid anatomy of these cases consists in degeneration of the cortical neurons, cell, corpus and axons, an increase in the neuroglia, varicose and fusiform dilations of the vessels. The great question to be determined is what is the cause of these explosive manifestations? Dr. Haig, who demonstrated that the elimination of uric acid was greatly diminished just before the paroxysm, and that after the convulsion the amount of uric acid thrown off was very great, reached the conclusion that epileptic seizures were due to the retention of uric acid in the blood, and that measures which would diminish the production of uric acid and promote its elimination should be curative in their results. But unfortunately clinical experience does not coincide with the theory. So that while the theory is based on facts, yet the relation of uric acid to the attacks is by no means so simple a matter. A flood of light has recently been thrown upon the question by one of Russia's profound medical students, Dr. N. Krainsky, of Charcow (¹). He has confirmed Dr. Haig's observations as to the relation of uric acid elimination to the seizures. He asserts with emphasis

the "occurrence of a seizure without a diminution of uric acid is impossible. Epileptic seizures will not occur when 0.6 to 0.8 grms. of uric acid are excreted daily. If the daily quantity of uric acid excreted fall below 0.45, or especially below 0.35 grms., a seizure is usually to be expected with certainty on the third day. Epilepsy is therefore to be considered not as a purely nervous disease, but as an anomaly of metabolism which has its basis in a contamination of the organism by a product of metamorphosis." The seizure must be regarded as a means of self-protection of the organism against the abnormal reaction, which otherwise would lead to its destruction. Dr. Krainsky by a series of experiments demonstrated that epilepsy is an intoxication, and that the poison is in the blood. By injecting blood drawn from a patient in the status epilepticus into a rabbit he produced violent epileptic seizures two to three minutes later. Blood drawn from the same patient after the seizure injected into the rabbit produced no effect. The quantity of blood necessary to produce the seizures in the rabbit was exceedingly small, 1 to 3 c. c., demonstrating the virulency of the poison. These results were verified by numerous experiments. He then proceeded to determine what this toxic agent was. While satisfied that it was not uric acid, he reached the conclusion that it was closely related to it, and by very ingenious argument and experiments demonstrated that it was carbamate of ammonium. Carbamic acid, $\text{C} \cdot \text{O} \cdot \text{N} \cdot \text{H}^2 \cdot \text{O} \cdot \text{H}$ being carbonic acid in which $\text{N} \cdot \text{H}^2$ takes the place of $\text{O} \cdot \text{H}$, and is an intermediate stage of albumin metamorphosis. That the nature of epilepsy consists in the periodical formation of carbamate of ammonium in the organism, which produces the seizures and is decomposed into urea and $\text{H}^2 \text{O}$ during them, so the great problem is to determine the cause and place of origin of this abnormal metamorphosis. He explains the benefits of the bromides of potassium and sodium not only by their sedative effects upon the nervous system, but by the ease with which they decompose

1 The Alienist and Neurologist, October, 1896.

the carbamate of ammonium, forming ammonium bromide and the carbamate of potassium, or sodium, salts which are harmless. The difficulty in curing by the bromides arises from the fact that they have no direct effect upon the abnormal metabolism, but simply serve to neutralize the poison produced, and quiet the nervous centers. The carbamate of ammonium, the offending material, being a product of abnormal nitrogenous metamorphoses, and being transformed into urea or uric acid, will serve to emphasize the dietetic treatment of epilepsy, and make manifest the necessity of the least amount of nitrogenous food consistent with the vital processes, and of the cutting off of sugar in order that the nitrogenous metabolism may be more perfect. The condition of the digestive canal should always be inquired into and purgation and gastro-intestinal antiseptics used from time to time. Systematic muscular training by equalizing the circulation and stimulating tissue metamorphosis in general must not be overlooked. In the use of bromides we should always avoid pushing the remedies to a possible mental deterioration, remembering that an occasional epileptic explosion which readjusts metabolism and is much to be preferred to the mental and physical damage done by too large doses of sedatives.

Of the soft pastes, the one that has enjoyed the best reputation is that first prescribed by Oscar Lassar, and named after him.

It consists of

R Acidi salicylici	2.00
Zinci oxidi	20.00
Amyli	20.00
Vaselin	20.00
Lanolini anhydr	20.00

Misce. Leniter lerenda fiat pasta.

This exceedingly useful therapeutical preparation is of extensive applicability; notably in the different forms of eczema. It is applied like an ointment, spread on the skin, leaving a coating on it and absorbing secretion instead of sealing it up.

TRANSACTIONS OF THE ILLINOIS STATE MEDICAL SOCIETY.

PROCEEDINGS OF THE FORTY-NINTH ANNUAL
MEETING.

HELD AT
CAIRO, ILLINOIS, MAY 16, 17 AND 18, 1899.

FIRST DAY—MORNING SESSION.

The Association met in the Cairo Opera House, and was called to order by the President, Dr. T. J. Pitner, of Jacksonville, at 10 A. M.

Prayer was offered by the Rev. George Peabody Hoster, of Cairo.

At the conclusion of the Prayer, President Pitner introduced the Hon. N. B. Thistlewood, Mayor of Cairo, who delivered the following:

ADDRESS OF WELCOME.

Mr. President and Members of the Illinois State Medical Society: It is my pleasure, on behalf of the people of Cairo, to bid you welcome to our midst. I was one of the committee that attended your meeting at Galesburg last year, and I was one of the number of friends of Cairo to ask you to meet in this city, telling you that I believed you would meet with a hospitable people, and that when you should go away, you would feel better for having met these people. I felt we would be highly honored by having such a representative body of men of the medical profession meet in our city, men who stand as high as the members of any profession in the world. I am not going to say that you are better than the physicians of Cairo, but if you are just as good as our doctors, you are certainly an excellent body of men.

You meet annually to exchange ideas. I believe these conventions are very useful to you, and to the physicians of the State of Illinois.

The City of Cairo is not old. We have not got a great deal of park. A little less than fifty years ago, practically, the foundation of the city was laid. At that time there was no levee here, and the people

were driven out every spring by the high waters that flooded this point. When the Illinois Central built its railroad here, the levee system was completed, since which time this city has been gradually advancing to the front. We have here two mighty rivers, which drain twenty-seven States and Territories, and we are living in a region of country which produces enough bread stuff to feed the world. The soil is rich. We have got manufacturing industries; we have lumber interests here that are perhaps second to none anywhere in this Western country. The lumber is gathered from points down the river, is carried in some cases more than two hundred miles by rail, loaded onto steamboats, and goes to Europe, to our Eastern States, to the North and Northwest. As a grain center we do an immense business. We have something else here. We have, I believe, the best water in the world, and that is saying a good deal. We have Artesian water which is just as good as you can obtain anywhere. It is a fine sparkling, healthful water, and obtained at a depth of nearly eight hundred feet.

We are glad you have come here. We hope you will mingle with our people and become acquainted with them. They are anxious to become acquainted with you. They will be benefited by your coming here, and you will feel stronger and better when you shall have returned to your homes. It seems to me that when I remain at home, I fall into a rut, and when I go away from home and mingle with others, it helps me to get out of this rut. I do not say that any of you are in that condition, but it is a condition I have found myself in many a time, and I have always felt better when I have gone away from home and mingled with others. I have felt refreshed after having returned home.

I did not expect to make a speech when I began, but simply to address to you a few words of welcome. I simply wish to say we will treat you the best we know how. If there is anything you feel that should be yours, ask for it, and you can have it. We want you to have the best there is in

the city; we want this to be the most successful meeting you have ever had. We want you, when you shall return to your homes, to feel that you have learned much from mingling with one another, and exchanging ideas. Gentlemen, I extend to you a hearty and cordial welcome to the City of Cairo. (Applause.)

RESPONSE TO THE ADDRESS OF WELCOME.

President Pitier: We thank you heartily for your words of kindness and consideration respecting our profession. We felt that when your Committee met us at Galesburg, that a cordial welcome was assured to us, and from the beginning, upon arriving in this city, we are now reassured of it from what we see and what you say. In the first place, we are most favorably impressed with this delightful auditorium, which you have selected for the accommodation of our meeting, and for what you have provided for us this evening and tomorrow evening. We believe that we shall be unusually well received and entertained, and for this most cordial welcome you have our heartiest thanks. We shall remember it always. We are glad to meet in this city, a city that has carved a fortune, and has laid the foundation for a brilliant success in the future under the most unfavorable circumstances. We remember a little of your history. General Grant held the Fort here against all odds, and to the end. You have taken up the same spirit, courage and enterprise, and have maintained it against the opposing forces ever since, until you have builded solidly. We are glad to see these evidences of enterprise, and wish you continued success. We shall remember your cordial and frank welcome to our Society. (Applause.)

REPORT OF THE EXECUTIVE COMMITTEE, THE

PRESIDENT, EX-OFFICIO CHAIRMAN.

President Pitner made the following report of this Committee:

The Executive Committee met Oct. 14, 1898, at the Great Northern Hotel, Chicago. All members present except Chairman of Section 2. The usual order of exercises was adopted. Section 1 coming on first day. The time usually given Section

2 was extended, taking all of Wednesday, and until 11 A. M., Thursday.

The Committee was requested by the Chairman of one of the Sections to arrange for separate sessions at the same time, but decided it best not to do this in view of previous unsatisfactory experience with this plan.

The Local Committee of Arrangements was authorized to send out with their invitations 8,000 preliminary programs.

T. J. Pitner,
Chairman.

On motion, the report was adopted.

The President: The next thing in order is the report of the Committee of Arrangements.

The report of this Committee was read as follows by Dr. J. C. Sullivan:

Mr. President and Members of Illinois State Medical Society: To fulfill the promise made this society by the Committee of Invitation at Galesburg last May, they have joined your Committee of Arrangements, and with the assistance of members of the Board of Trade, have left nothing undone to render your welcome the most cordial, your stay the most profitable and pleasant that our united efforts could procure.

The use of this Opera House was donated the society by Capt. W. P. Halliday.

The exhibition hall was planned by Mr. P. W. Barelay and is so arranged that every one must pass through it in order to enter the Auditorium, thus giving the exhibitors the best possible advantage for displaying their goods that they have ever enjoyed.

The artistic silver mounting on the gavel was done by Mr. John A. Miller, one of our leading jewelers, and is presented with his compliments to this society.

Dr. W. F. Grinstead, our local and assistant secretary, sent between Feb. 15 and March 1 7,000 circular letters and preliminary programs to every regular physician in this State.

On April 10 he sent a most cordial invitation to every member of the South Eastern Missouri District Medical Society and one each also to the members of the South

Western Kentucky Medical Society, to attend this meeting.

On May 10 he sent 2,000 postal card notices to the Doctors residing in this State south of Springfield. Therefore, if the attendance is not up to our expectations and hopes, the fault is most assuredly not ours.

This evening at 8:15 the citizens will give a welcome entertainment here by local talent. On tomorrow (Wednesday) from 2 to 5 in the afternoon, there will be a steamboat excursion for visiting Ladies and Physicians viewing Bird's Point, Mo., where General Grant had such a narrow escape from capture after the Battle of Belmont. Further south will be seen the village of Columbus, Ky., noted during the war of the Rebellion as the gateway between the North and South. Thence up to the I. C. great steel bridge, two miles in length, irrespective of its approaches, the second longest bridge in the world; thence to the gushing artesian well on to the farm of Capt. W. P. Halliday near the Cache Creek, the most tortuous stream in the world, being but 33 miles in a direct line from source to mouth while its meanderings measure 187 miles in length.

In the evening at 7:30 sharp there will be a promenade concert in the parlors of the Halliday house, during which we hope many new acquaintances will be formed and old ones renewed. Immediately after which a Banquet will be held to which *all*, Ladies and Gentlemen, whether physician or citizen, are most cordially invited.

During your stay in our city you are most cordially invited to visit the Marine hospital, situated at the extreme western end of 11th Street on Cedar, also St. Mary's Infirmary, situated on Walnut St. between Cross and Center Sts., our Public Library, on Washington and 16th Sts., also our schools, especially our High School, in which we take particular pride, situated on Walnut and 24th Sts. The belt line of street cars pass near all of these, your badge is a passport and will admit you anywhere, whilst pledging to our citizens with this Society's endorsement that you are both a Physician and a Gentleman.

The President: We will now hear the report of the Committee on Registration, Dr. George N. Kreider, Chairman.

Dr. Kreider: As usual, owing to advanced registration, there is very little to report on this occasion. An unusually large number have registered in advance, some 260, and have thus lightened the burden of work of your Treasurer. It is needless for me to urge upon the members in the future, for the benefit of that officer, that they register in advance, and enable him, whoever he may be, to devote his time to the interests of the Society, which cannot be done without advanced registration.

In regard to dropping members, the Treasurer is required to report each year. I will say, that presuming this Society desires to keep every member that it is possible to keep, on its books, I have taken the liberty of holding every man as long as I could, and only dropping him when he would not remain a member. I have therefore trampled on the By-Laws to keep the membership up to the highest point. Several of our members were absent as surgeons during the late war, and did not pay dues, so I took it upon myself to recommend the Secretary to send the Transactions to those members who were away from their regular duties, receiving a small remuneration in comparison with their usual incomes. We decided to send these men the Transactions, although they did not pay their dues during the past year.

I desire to ask a few minutes to present a matter which I think will be of interest to the Society, and which I desire to present at this time, and have it referred to a Committee for further consideration, to report some time later in the course of the meeting.

JOURNALIZING THE TRANSACTIONS.

To increase the membership and extend the influence of this society until it shall reach every practitioner of medicine and through them every individual in the commonwealth is doubtless the sincere wish of every person now holding allegiance to the

organization. The desirability of making an effort in this direction has been most forcibly brought to my mind during the past year when, as a member of the legislative committee, I saw more clearly than ever before the necessity of getting in touch with the profession and of obtaining their co-operation in securing legislation. Some of the most active workers in securing legislation have been gentlemen holding no membership in this or any other medical society. These gentlemen are not society men. They keep up with the profession by diligent reading or by taking post-graduate courses, but for some reason best known to themselves do not meet their fellows in meetings such as this. There should be some way, it seems to me, of getting hold of these workers and enlisting them in work which is designed to help not only our society but every practitioner of honest medicine of every sect and creed. In the past the society has called on these men whenever it became necessary to secure legislation. It seems to me they should be reached regularly and permanently and their energies utilized for their and our benefit. Having seen the necessity for better organization of the profession, I conceived the idea, an outline of which I will briefly give.

In the first place, I wish to disclaim any scheme. I have no ax to grind and in this matter propose to vigorously fight ax-grinding at the expense of the society. It seems to me that the changes proposed can be best carried out by the present officers of the society. The idea of issuing the transactions of the society in journal form suggested itself to me. I, of course, knew that our national organization had adopted this means for a number of years and to its great advantage, but did not know until informed by our secretary that the Pennsylvania Society had adopted the same idea, since 1897, to the great advantage of that organization. Dr. Weis sent me a copy of their publication and I at once addressed to the editor, Dr. Koenig, of Pittsburg, some questions which he kindly answered in the personal letter which I now read.

March 16, 1899.

Dr. George N. Kreider,

Treasurer Illinois State Medical Society.

Dear Doctor:—

Your letter of the 13th inst. at hand. In reply to your request for information regarding the conditions under which the Medical Society of the State of Pennsylvania publishes its transactions in journal form, I would say as follows:

For a long time the question of publishing the transactions in journal form, was under discussion in our state society. For many years I had been publishing a medical journal, called the *Pittsburg Medical Review*. At the meeting of the medical society in Pittsburg, May, 1897, I offered to change the name of the Review to that of the Pennsylvania Medical Journal, and to publish under that name, the transactions of the society, having a membership at that time of 2,800 or 2,900 in its subsidiary county societies, for the sum of \$200 per month, each member to receive a copy gratis. No advertisements of any proprietary medicines were to be published. This was in keeping with the record of the Review previously. The income for the advertising pages remained my personal property. At the end of the year I agreed to turn the Journal over to the society, on condition that the advertising pages be forever kept in the same ethical form. I am also in receipt of a salary of \$150 per year, as chairman of the committee on publication. At the end of the first year the Trustees preferred to continue the same arrangement, rather than take the responsibility of publishing the Journal themselves, and my contract was renewed. The membership having increased considerably, I requested an increase of \$50 per month, which was granted. The Journal was, however, also increased from 48 to 56 pages of reading matter.

As to your special questions, I would say, that the journal takes the place of the bound volume; 2. As it goes gratis to about 3,500 physicians in the state, it has but few additional subscribers, and as no patented or proprietary medicines are advertised, the

advertising pages are necessarily also limited. Both subscriptions and advertisements could probably be increased did I have time to give them attention; 3. My compensation, as already indicated, is represented by the advertising pages, by the extra subscriptions and by the salary of \$150 per year, over and above the \$250 paid by the society monthly. 4. It is issued monthly and at the present time 4,100 copies are published. Of these I send over 100 to exchanges; 1 copy to the secretary of every State Medical Society in the U. S., and an additional number to libraries, etc., without charge to the society; 5. A marked editorial in the December number of the Journal, sent you under separate cover, will answer this question; 6. The cost of issuing the Journal, to the society per year for 1898-99 is \$3,000. About the same per capita, as when the transactions were issued in the form of a bound volume. I believe I am justified in saying that the Journal is popular with a large majority of the members of the society. There are, however, a few who seem to miss the bound volume of transactions, probably because they were so handy to put into the bookcase, and thus increase the number of books on hand. I am of the opinion that the Journal will be continued.

This long letter is more of the nature of a personal communication, rather than for public reading; the facts it contains, however, you may make use of as you see fit.

Yours truly,

Adolph Koenig.

In the editorial referred to Dr. Koenig says: In the beginning the experiment of issuing the Transactions in the form of a monthly journal was looked upon by many as presenting great obstacles. By some it was thought that the bound volumes of Transactions was more desirable as permanent records of the society and that their superiority over monthly editions was marked. The advantages of the journal are first and foremost. It keeps the State Society alive and before the profession throughout the year. It offers oppor-

tunities for reports of county and district medical societies and for the publication of official business without additional expense. By reason of its periodical appearance members are kept in mind better of their duties to the society. It can be demonstrated that the Society has grown rapidly since the journal was commenced. Several new county societies have been established and new interest awakened in others. The gain in membership for three years prior to 1897 was on an average 146. The first year the journal was established the gain was 356, or more than two times the average gain of previous years.

What will the establishment of a journal accomplish? First, the change is likely to add a large number to our membership. As to our membership it is ridiculously small. The number is now barely six hundred in a state having about 8,000 regular practitioners. In 1889 the membership was about 275. In 1899 540 paid dues. An average gain per year for ten years of 27. These figures will tell better than any words of mine the snail's pace at which we are advancing. Can we not increase our membership by the hundred instead of by the score. Besides the establishment of our journal I propose that we divide our membership into three classes.

1st. Active members as we now have. Practitioners who pay dues, are eligible to office and are responsible for the acts and policy of the Society.

2d. Associate members, who take and pay for the journal at a slight reduction from the regular rate if thought best, but who are not eligible for office and are not required to submit credentials as members of local societies to hold their associate membership. I believe there are 2,000 or 3,000 persons practicing in the state who would subscribe for the journal at \$2.00 per annum and thus connect themselves with our organization.

3d. I would propose that we have honorary and corresponding members. Since our last meeting our beloved land has made a giant stride in the way of becoming a world power and we have imposed upon us,

whether we wish it or not, certain social and political duties of which we little dreamed when the present constitution was drafted. Shall we not accept this responsibility and imitate our European brethren by having certain forms of complimentary membership which may mean much both to them and us. This subject has been brought to my mind by a letter which was recently sent to me from Havana. It was addressed to the President of the Society and read (translated) as follows:

UNIVERSITY OF HAVANA.

FACULTY OF MEDICINE.

Laboratory of Physiology.

Havana, April 9, 1899.

Mr. President, Sir:—Being a great admirer of your learned society I take the liberty of sending you recent publications of mine with the idea of aspiring to the title of corresponding member of your influential body if it may so please you. I send herewith a paper on tuberculosis in Havana and if you wish will forward also my less recent papers for your library. If you accord me the great distinction that I solicit, be kind enough to send me the proper diploma and inform me of the charges which I should pay as a corresponding member. Be pleased to accept, Mr. President, the homage of my most distinguished consideration.

(Signed) Dr. Antonio de Gordon.

Finally, as to the cost of the journal, I have made some investigations and believe that the project can be carried out at a cost not greater than we have been paying.

Some criticism has been offered to starting another journal. I do not see that it cuts any figure in this matter. We have to spend so much for our work any how and if it can be spent to better advantage, let us put it in journal form and have the Society get the benefit of it. Every trades union in the state has its own publication, which it would not have did it not find it profitable. Every fraternal insurance society prints large editions of a paper calculated to increase its influence and profits.

Let us not be behind these inferior organizations.

I now move that this matter be referred to a Committee of five, to report at a subsequent session. Seconded and carried.

The President: I want a little time to consider the personnel of this Committee, as it is an important matter, and I will appoint this Committee at the close of the morning session.

Dr. E. P. Cook: I rise for the purpose of making a motion which has for its consideration the best use of the time of the Society in the Sections. In Section 6, Article 4, of the By-Laws, we read, "No paper shall exceed twenty minutes in length." We have no objection to that. In the discussion it is said that "each speaker shall be limited to ten minutes." We have a large number of papers to be presented in each Section, and ten minutes is too long for individual discussions. Now, we give notice under the provisions to amend the By-Laws of this Society, if it meets with your approval, at the next Annual Meeting to this effect, that discussions shall be limited to five minutes. Furthermore, under this provision of the By-Laws it requires only a vote of three-fourths of the members present to make this change in the By-Laws at any meeting. I therefore move that individual discussions on papers be limited to five minutes, and that no gentleman shall speak a second time unless by permission of three-fourths of the members present. This is to apply to all Sections.

Seconded and carried.

As there was no further business to come before the general session, Section 1 was called to order by the Chairman, Dr. Arthur C. Cotton, of Chicago; Secretary, Dr. H. W. Woodruff, of Joliet.

SECTION I—FIRST SESSION.

Dr. George F. Butler, of Chicago, delivered the Address of this Section. He selected for his subject "Serum Therapy."

Dr. C. D. Center, of Quincy, followed with a paper entitled "Variations in Malarial Manifestations."

Dr. Hugh T. Patrick, of Chicago, con-

tributed a paper on "Diagnosis of Locomotor Ataxia."

At the conclusion of Dr. Patrick's paper, the President announced as the Committee on Journalizing the Transactions of the Society, Drs. E. P. Cook, John H. Hollister, C. B. Johnson, Carl E. Black and J. W. Pettit.

Mr. George E. Ohara, of Cairo, was introduced to the Society, and extended an invitation to the members to visit the Alexandria Club House. He also extended an invitation to the Society to visit the Woman's Club of Cairo.

On motion, these invitations were accepted.

Dr. J. W. Pettit: As Chairman of the Committee on Medical Legislation, I ask for the appointment of an Auditing Committee to examine the accounts of the Legislative Committee, in order to see that they are correct and make a report to this Society. This is a little out of the ordinary, I know, but as your Committee has expended considerably more than the usual amount, I would like to have the Society know what has become of the money.

Seconded and carried.

The President: I will appoint on that Committee Drs. Hugh T. Patrick, of Chicago; J. E. Allaben, of Rockford, and Charles D. Center, of Quincy.

On motion, the Society adjourned until 1:30 P. M.

FIRST DAY—AFTERNOON SESSION.

The Society reassembled at 1:30 P. M., and was called to order by the President.

SECTION I—SECOND SESSION.

Dr. Daniel R. Brower, of Chicago, read a paper entitled "A Newer Pathology of Epilepsy."

Dr. W. Xavier Sudduth, of Chicago, read a paper on "Psycho-Physical Culture."

Dr. E. Wing, of Chicago, read a paper on "Anterior Poliomyelitis."

The above papers were discussed jointly by Drs. Patrick, Brower, Sudduth, Wing, and Norbury.

Dr. H. S. Worthley, of Elwood, read a

paper on "The Treatment of Scarlet Fever."

Dr. R. H. Henry, of Peotone, read a paper on "Rational Therapeutics."

The paper of Dr. Henry was discussed by Drs. Sudduth, Webster, and Cotton.

Dr. W. J. Chenoweth, of Decatur, followed with a paper on "Post Hoc, Propter Hoc," which was discussed by Drs. Cook, Hollister, Coulter, and the discussion closed by the essayist.

Dr. W. J. Fernald, of Rantoul, read a paper on "The Influence of Biological Research on Surgery and Medicine," which was discussed by Drs. Dickinson and Graham.

Dr. A. R. Elliott, of Chicago, read a paper on "Some Aspects of Chronic Bright's Disease."

Dr. J. T. McAnally, of Carbondale, read a paper entitled "Psychology Versus Medicine." This paper was discussed by Drs. Hollister, Sudduth, Lewis, Weis, Allaben, Baughman, McKenna.

A motion was made and carried that all papers contributed to this Section and in the hands of the Secretary, whose authors were not present, be read by title.

Dr. E. P. Cook: I wish to call attention to the fact that by the faithful and earnest work of the officers of Section 1 thirty-six papers were promised. This is an evidence of the earnestness with which they discharged their duties. As a matter of fact, however, only eleven papers have been presented, and most of them discussed. It is of interest to us to watch the work of the Society from year to year, to see some improvement in this respect. Is it necessary to secure the promises of thirty-six men for the number of papers whose authors are likely to be present? I think not. The men who promise papers should be here to read them. The men who have presented papers today are the ones whom the Society have been able to count on in the past. I am sure you will agree with me when I say that the work thus far done by this Section reflects great credit on our officers.

Dr. John H. Hollister: A word of palliation in reference to this matter. Some

of the members have traveled over three hundred miles to read papers, and others who are not present have prepared papers to be read with the best intent. But the Association has met so far away this year that it accounts largely for the small representation of essayists. As a general thing, physicians are men of honor, and I hardly think some of the members had their names placed on the program without any intention of being present.

The Secretary read a telegram from Dr. Eyster, of Rock Island, inviting the Society to hold its 1901 meeting in that city. This was referred to the Committee on Nominations.

On motion, the Society adjourned until 8 P. M.

FIRST DAY—EVENING SESSION.

The Association reassembled at 8 P. M. at the Cairo Opera House, and was called to order by Dr. Grinstead.

The program for the evening was opened with the brilliant rendition of a musical selection entitled *Bride Elect*, by Schindler's Orchestra, after which the President, Dr. T. J. Pitner, delivered his Address. He selected for his subject "Currents and Countercurrents in Medicine."

The address was listened to with marked attention throughout its delivery.

[CONTINUED NEXT MONTH.]

REPORT ON NECROLOGY AND BIOGRAPHY.

To the Members of the Illinois State Medical Society:

Gentlemen:—Your committee desires herewith to submit its annual report.

During the year since last we met, death has summoned from our midst a number of our prominent members. Notable among these were our former Secretary, Dr. John B. Hamilton, Prof. James H. Etheridge and Dr. B. M. Griffith; Dr. M. Rooney, Dr. A. J. Morton, Dr. W. M. Catto, Dr. Ella M. Patton and Dr. Gray Taggart.

Brief biographical sketches of the lives and labors of these eminent members are herewith submitted and with your leave

will be referred for publication—to which reference can be made at your leisure, as they shall appear in the transactions.

Upon that portion of our work which pertains to Medical Biography we desire to submit the following special report.

At the Annual Meeting of this Society in 1882, a recommendation was submitted by Dr. J. H. Hollister, that steps be taken to secure brief biographical histories of the members of the society with a view to their future publication.

On motion of Dr. G. Wheeler Jones of Danville a committee of five was appointed by the President, consisting of Dr. Jones, as chairman, Dr. W. A. Mendenhall of Georgetown, Dr. M. A. McClelland of Chicago, Dr. A. C. Cox of Carlinville and Dr. S. J. Jones of Chicago, to consider and report upon the proposition.

At the next Annual Meeting in 1883, the committee reported favorably and outlined a general plan of procedure, which was unanimously adopted.

In accordance with the plan proposed, Dr. S. J. Jones of Chicago, Dr. Robert Boal of Peoria and Dr. F. B. Haller of Vandalia were appointed a first committee to search the transactions and select the names of the founders and all those who had been members of the society for five or more years.

A second committee of ten members was appointed, to subdivide the work and secure the biographical sketches of the members which was assigned to them respectively.

A third committee of five was appointed to which the sketches should be finally submitted. The committee consisted of J. H. Hollister, Ephriam Ingals, G. W. Jones, F. F. Worrell and F. B. Haller. J. H. Hollister was charged with the editorial supervision of the work when ready for publication.

As the treasury then contained a surplus of \$779.00 it was believed that ample provision could be made for the publication of such a historic volume, when the work of the several committees was completed.

It was further advised that the work should be issued as a Memorial Volume, its scope being limited to the historic records of its deceased members.

In due time the several committees entered upon their work. A list of the founders and those who had been members for five or more years was secured and the effort to secure sketches of the deceased members was made.

It was first suggested that the volume be published at the conclusion of the first third of a century of the society's existence, but as time went on, by common consent it was agreed that the semi-centennial year would be the one more appropriate.

The later work of the Biographical Committee has been so identical with that of the Committee on Necrology, that for the last seven or eight years the two committees have been merged in one and have consisted of Dr. J. H. Hollister of Chicago, Dr. O. B. Will of Peoria and Dr. E. J. Brown of Decatur.

The reports of the committee have been published in the successive volumes of Transactions.

Your Committee on Biography respectfully submit the subject of publication to the Society for its careful consideration and suggest that a committee of three be appointed, of which the President of the Society shall be chairman, to confer with the present Committee on Necrology and Biography as to the desirability and feasibility of such publication and that they report to this Society at some convenient hour before the close of the present meeting, to the end that time may not be unduly consumed on the floor of the house by a general discussion of this subject.

All of which is respectfully submitted,
John H. Hollister, *Chairman*.
O. B. Will.

DR. JOHN B. HAMILTON.

Dr. John B. Hamilton, of Chicago, editor of the *Journal American Medical Association*, died Saturday evening, December 24, 1898, from an attack of typhoid fever,

with perforation of the intestine. He had been ill for a short time only, and at first it was thought he would survive the operation, which was done on Thursday. His remains were taken to Washington, D. C., for interment.

He was born in Jersey County, Illinois, on the 1st day of December, 1847; received his early intellectual training at the Hamilton School, and later pursued a classical course under Professor John Grant, a noted Latin scholar from Edinburg University. In 1863 he entered the office of his uncle, Dr. Joseph O. Hamilton. In 1864 he enlisted at Jacksonville, Morgan County, Illinois, as a private in Company G, Sixty-first Illinois Infantry, the regiment of which his father was chaplain, then stationed at Little Rock, Arkansas. After a brief military career he removed to Chicago and entered Rush Medical College, from which he graduated February, 1869. From that date until 1874, he engaged in general practice. In 1874 he was appointed Assistant Surgeon and First Lieutenant of the U. S. Army, serving at St. Louis Barracks and in the Department of the Columbia, at Fort Colville, Washington. Resigning his commission in 1876, Dr. Hamilton became an applicant for a position in the United States Marine Hospital Service. As the result of a competitive examination, he secured the position of Assistant Surgeon, with headquarters at New York. From this point, in May, 1877, he was ordered to Boston, and during the succeeding month was promoted to be the surgeon.

General John M. Woodworth, Supervising Surgeon-General of the U. S. Marine Hospital Service, died in March, 1879, and Dr. Hamilton was placed in temporary command of the Bureau, and in April following was promoted to the vacancy. He immediately began the reorganization of the service, managing campaigns against two epidemics of yellow fever during the term of service, and succeeded in having placed on the statute books the National Quarantine Acts. In 1883 his sanitary cordon stretched from Laredo on the Texas fron-

tier to the mouth of the Rio Grande, and another was placed at the Pensacola Navy Yard, on account of a local epidemic at that point. In 1888 he established Camp Perry, on St. Mary's river, Florida, this being the first station known to sanitary science which had been organized for the transmission of yellow fever refugees. After being thoroughly disinfected, they were passed through to their destinations. In no case was there a reappearance of the disease.

The year 1890 was one of especial honor to Dr. Hamilton, his annual report submitted to the Treasury Department giving some idea of the broad scope of his activities. The report embraced la grippe in its ravages from Russia to and into the United States; cholera in Asia and Europe; small-pox in Mexico, and leprosy in Cuba. In view of his services in preventing the introduction of yellow fever to the United States, he was called upon by the American Public Health Association to make efforts to bar out leprosy in Cuba. In March, 1890, the Inter-State Quarantine Law was drawn by him and passed. This report also contained a communication to the then Secretary of State, the late James G. Blaine, on the sanitation of ships and quarantine, and a report of the immigration service. It further embraced an elaborate and finely illustrated account of Dr. Hamilton's visit to the chief hospitals of Europe, made under Government instructions, upon the occasion of his trip to Berlin as a United States delegate to the International Medical Congress. He served as Secretary-General of the Ninth International Medical Congress, held at Washington in 1887.

In June, 1891, after his return from Europe, he resigned his position and once more entered the ranks of medical officers as a surgeon. In June, 1892, he was temporarily ordered to New York, where he established the first camp in the United States for cholera suspects. Several vessels, notably the *Normania* of the Hamburg-American Line, were already quarantined in New York harbor, having on board a large number of passengers who had been

exposed to the infection, more than 10,000 being booked for passage from European ports or already on their way.

Dr. Hamilton assumed his position as surgeon in charge of the U. S. Marine Hospital Service, located in Chicago, June, 1891.

While a resident of Washington he was elected Professor of Surgery in the University of Georgetown, from which institution, in 1889, he received the degree of LL. D. He was also surgeon to the Providence Hospital, Washington, and, upon his resignation as Surgeon-General in 1891, and his return to Chicago, became Professor of the Principles of Surgery and Clinical Surgery in Rush Medical College. He was also chosen Professor of Surgery in the Chicago Polyclinic, and Surgeon to the Presbyterian Hospital. He was a member of the local medical societies and of the State Medical Society, and from 1894 to 1898 was its Permanent Secretary. At the time of his death he held the position of Superintendent of the State Insane Asylum at Elgin, was editor of the *Journal American Medical Association*, and President of the Board of Directors of the Chicago Public Library.

His contributions to general medical literature have been numerous. He was a good diagnostician, and a skilful surgeon. As an editor he displayed great versatility and remarkable executive ability. As a superintendent he showed great foresight, in that he decided the most delicate questions of administration instantly and correctly. He had a very retentive memory, and possessed an unusual fund of information, both medical and surgical. As a speaker he expressed himself forcibly, clearly and succinctly. In habit he was ever prompt and punctual; in manner, courteous, polite and dignified; and he had an extraordinary character of firmness and decision. He knew no such thing as vacillation, and nothing seemed to daunt him. Difficulties that might appal others, to him only served to develop renewed courage and confidence. He possessed a kindly,

generous and humane heart, and the memory of his noble character will live forever.

JAMES HENRY ETHERIDGE, A. M., M. D.

A few weeks ago the pages of the *Journal* chronicled the death of the then editor, Dr. John B. Hamilton, and now his college-mate, his faculty colleague, his long-time friend, joins him in the long rest. James H. Etheridge died late Thursday evening, February 9, at his residence, 1634 Michigan Ave., Chicago. The cause of death was fibrous myocarditis, the result of coronary sclerosis. Slight attacks of angina had for a few weeks given some warning of danger. Death was sudden at the last.

James Henry Etheridge was born at St. Johnsville, Montgomery Co., N. Y., March 20, 1844. On both his father's and mother's side he was of English descent. He received a common school education and was preparing for college when his plans were changed by his father's departure for the war. He was favored in being reared in a medical atmosphere, as his father was a practicing physician. With four years of reading with his father as preceptor, he entered Rush Medical College, and was graduated in 1869. He took what was for that time an unusually long course of study—three winter courses. Leaving college he located in Evanston, then, as now, one of Chicago's choicest suburbs. After about two years of practice here he went to Europe, devoting much time to the hospitals, particularly those of London and Paris. He returned to Chicago, and on July 31, 1871, began work in that city, the scene of his uninterrupted labor up to the time of his death.

After the first years of struggle for practice, embracing the period of the great fire and the panic of 1873, professional work increased more and more, and the young man became truly busy, doing a large family practice. He was eminently successful in attaching families to him, and after giving up general work it was hard for him

to resist the urgent personal appeals made by his old patrons, who counted him their trusted friend and adviser.

But his leaning had been for some time toward gynecology. Even before the death of William H. Byford, he had been teaching this subject clinically in Rush. Upon the death of Professor Byford he was, therefore, promoted to the professorship of gynecology, which chair he held up to the time of his death.

As an operator he was wonderfully deft in the use of instruments. He was an unusually rapid worker, and once having mastered the theory and practice of asepsis his results were to be favorably compared with those of the most eminent and successful surgeons. The amount of work done, the number of operations performed were, in some months, truly stupendous. So great was it that it really left him little time to read, study and write, a fact he always regretted.

On the death of Professor Knox, Dr. Etheridge was asked to fill his chair, so that he was, at the time of his death, professor of obstetrics as well as of gynecology.

As a lecturer he was plain and straightforward, seldom indulging in theories, never shooting above the heads of his students. His teaching was eminently practical. He taught what the practitioner of medicine would find necessary in his everyday practice and not what he might need in some rare case encountered perhaps once in a decade. This, with his happy disposition, his jovial wit, his apt illustrations, made him an ever popular teacher.

It would seem as though this would be all that a man could well attend to; but Dr. Etheridge found time to take an active part in other medical matters. In 1886 he was elected president of the Chicago Medical Society, and in 1890 of the Chicago Gynecological Society. He was a member of other local and national societies and was one of the founders and a life member of the International Association of Obstetrics and Gynecology. He long served as attending physician to St. Luke's Hospital, and

at the time of his death was attending gynecologist to the Presbyterian Hospital, consulting gynecologist to the St. Joseph's Hospital, and professor of gynecology in the Chicago Polyclinic, of which institution he was one of the founders, and in whose success he always took great pride. For many years he was secretary of the Faculty of Rush Medical College and one of the most trusted and valuable working members of that body.

This is but a plain recital of facts concerning the life of this busy, this overbusy man. Yet, with all the toil, care, responsibility and anxiety, he preserved his sweet and sunshiny nature unsoured and unclouded. He looked on the bright side of things, was hopeful and joyous. He was always a capital table-companion, was just the man one would like to travel and share a seat with on a long or short journey; for he was jolly, witty, companionable, without being coarse or offensively obtrusive in manner or remarks. But he was more than this. He was a true friend, and tears fell from many a manly eye when the startling news came that his warm heart had ceased to beat.

He will live in memory as a successful practitioner, a trained and eminent gynecologist, an operator whose dexterity and skill were most widely known, a practical and popular teacher, an active and honored participant in local and national medical affairs; but if we mistake not he will more truly live in the memory of his hosts of grateful patients and of his many lay and professional brethren who delighted to call him friend. The suffering woman who looked into his eye knew instinctively that her surgeon was also a man, and she trustingly underwent the operation, feeling that she was to be treated not merely as a mass of muscle and nerve and blood-vessels, but as the wife, the mother, as a human being. To see him visit one of these patients was a most valuable lesson on the importance of cordial sympathy with the patient as a human being and not a sick animal. Hundreds of these patients mourn his loss and

share with his professional colleagues a sense of personal bereavement.

Dr. Etheridge was married in 1870 to Miss Harriet Powers, daughter of Herman G. Powers, of Evanston, Ill. Mrs Etheridge and two daughters survive him. It is not the place to discuss family affairs, but it can be truly said, and by one who knows, that no husband and father was more idolized than this man, and he returned with full measure the love and devotion he received.

DR. B. M. GRIFFITH.

Dr. B. M. Griffith, the beloved physician and accomplished sanitarian, died at his home in Springfield, Sept. 24, 1898, having been in active practice for over forty years, and always deeply interested in sanitary conditions.

Dr. Griffith was born in Shelby County, Kentucky, but spent his early life in Missouri, the family moving to Lincoln of that state in 1840. He began the preparatory study for medicine in Louisiana, Missouri, in 1853, and was graduated from the St. Louis Medical College in 1859.

Since 1865 he has lived in Springfield, ever planning and working for the advancement of his profession and the good of humanity.

Dr. Griffith took deep interest in educational as well as professional movements, being a charter member of the Springfield Board of Education, organized in 1869, and serving it six years. He was a charter member of the Authors' Club, organized in 1882, and its president for six years.

As a member of the city Board of Health he was duly vigilant of the city's sanitary condition.

As a member of the Sangamon County Medical Society, the District Medical and Tri-State Medical Societies, he was ready to take his share of work or responsibility. In 1892 he was appointed consulting physician of St. John's Hospital.

He took great interest in the proceedings of the American Medical Association, of which he was a member.

Few meetings of the Sanitary Council of the Mississippi Valley were neglected; he felt it a duty for members to be present if they could.

Dr. Griffith's report as Secretary for the National Confederation of Medical Examining and Licensing Boards at Atlanta, Georgia, in 1896, was concise, far-reaching and conclusive.

He was intimately associated with Dr. Rauch in the State Board of Health work, and after six years service he resigned in 1896. He was President of the Board from 1895 to 1896.

As a member of the State Medical Society he loyally watched its interests and workings, for science, truth and humanity, as part of his individual work.

A noble, self-sacrificing and useful life is ended.

The Illinois Auxiliary Sanitary Association in their meeting September 25, 1898, said: "Whereas, death has removed from our membership our late President and colleague, Dr. B. M. Griffith, who has achieved a high position in the ranks of his profession, and whose connection with the Association and the Illinois State Board of Health, has led us to appreciate and admire the qualities of his mind, which contributed so largely to the success of both organizations. We feel that in his death the Association has lost a progressive and conscientious member, and the cause of advanced sanitary science a strong advocate."

A prominent medical journal said: "Dr. Griffith was a strong character, a conscientious and able physician and an accomplished sanitarian."

The Biographical Dictionary said: "Personally Dr. Griffith possessed most excellent qualities; a man of sterling worth, dignified bearing and inflexible integrity, he endeavors in an unpretentious manner to leave upon others the impression of his own character, and to reveal by a true life the power of a noble manhood."

Dr. Griffith leaves a wife and two children. His son, Dr. B. Barret Griffith, succeeds him in business. His daughter,

Eloise, is the wife of Dr. T. J. Pitner, of Jacksonville, Illinois.

DR. WILLIAM MASON CATTO.

Dr. Wm. Mason Catto was born at Bothwell, Province of Ontario, Canada, in 1858. He was educated in the public school and at St. Catherine's Academy, and, although early thrown upon his own resources and compelled by circumstances to contribute to the support of his mother, brothers and sister, he succeeded by school teaching and other employment in saving enough to take a medical course at the Detroit College of Medicine, from which he graduated in 1882. He married and came to Macon county, Illinois, the same year and located in the little village of Warrensburg, where he practiced successfully for five years. He then purchased an interest in the business of a prominent physician in Decatur, Ill., where he continued in practice to the time of his shocking death, which occurred Jan. 27th, of the present year.

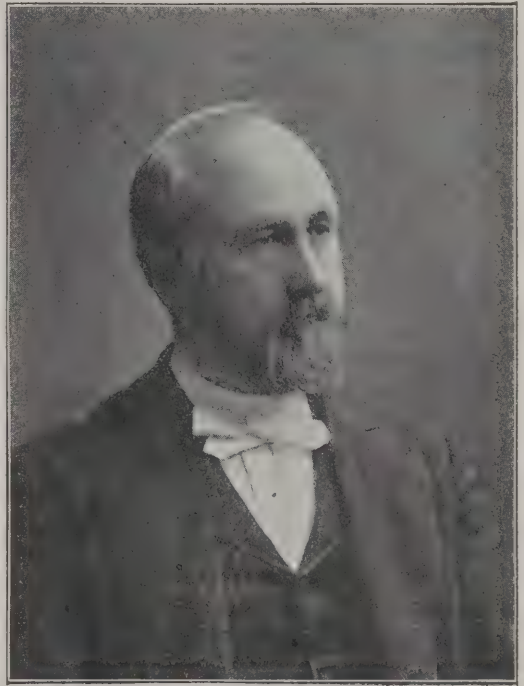
At the time of his death Dr. Catto had one of the largest and most remunerative practices in Central Illinois.

While about to return from a professional call at Assumption he attempted to pass between freight cars on the side track to reach his train, which was already in motion. He was warned away from one opening by the trainmen, but ran to the next and tried to slip through, but was caught and his left breast crushed between the bumpers. He died almost instantly, never speaking. His funeral occurred Jan. 29th and was attended by our local medical society and the various fraternal organizations of which he was a member and a multitude of people who gave evidence of the esteem in which he was held.

Dr. Catto was a member of this society and read a paper at each of the last two meetings. In his death the society loses an active, industrious member, the profession a zealous and skillful physician, and the state an honored citizen.

DR. MICHAEL ROONEY.

Dr. Michael Rooney was born in the city of New York, Jan. 31, 1837, and died at his home, Quincy, Illinois, Sept. 10, 1897, of perforation of the bowel, after an illness of four weeks. Fifteen years previous Dr. Rooney suffered a very serious attack of obstruction of the bowel, in which, although the symptoms of obstruction were of only one week's duration, the prostration was so extreme as to confine him to



DR. MICHAEL ROONEY.

the house for over two months. Upon his recovery he resumed the work incident to a large general practice, enjoying almost perfect health. One month prior to his death he had an attack of colic, which suggested appendicitis to his attending physicians, but his age and weight were considered unfavorable for operative interference, and Dr. Rooney himself considered his chance of recovery better without surgery. The autopsy revealed a complete closure of the ileum by a constricting band eighteen

inches above the ileo-cæcal valve, the site, doubtless, of a volvulus with ulceration in the earlier illness.

Dr. Rooney was a man of most decided character and great probity. It is related of him that while a clerk in the postoffice at Springfield, Ohio, wishing to study medicine after the hours of closing, his conscience would not allow him to appropriate to his own use the gas furnished the office, but he studied by the light of his own tallow candle. Also the evasion of a man's just taxes was to him an inexcusable weakness of character. He was dependent upon his own exertion from the age of eleven, and by dint of great economy he was able to take a classical course at St. Xavier's College in Cincinnati, Ohio, one year in medicine at Ann Arbor, Michigan, and graduated in 1867 at the Miami Medical College, Cincinnati, Ohio. After a brief term of partnership with Dr. Sprague at Vienna Cross Roads, Ohio, where he eked out a living by teaching school, Dr. Rooney removed to Quincy, Illinois, in the summer of 1871. Here his knowledge of German and his friendliness towards the poorer classes gave him a large practice, especially among Catholics and Lutherans. He immediately acquired a position on the staff of St. Mary's Hospital, and very soon was the medical adviser of all the Catholic institutions of the city, viz: St. Mary's Institute and Convent of Notre Dame, the St. Francis College and Monastery, the St. Aloysius Orphan Asylum, and the St. Vincent Home for the aged, all of which charitable work he continued until his death.

From the time of its organization in 1887, until the close of his life on earth, Dr. Rooney was a member of the Board of Directors and also of the Book Committee of the Free Public Library of Quincy, Illinois. Dr. Rooney was also a member of the Board of Directors of the Associated Charities, a representative from the Catholic Church, chosen for his excellent judgment and love of humanity.

Dr. Rooney was a man among men. He was quiet, unassuming and very conservative, yet benevolent, kindly and gracious,

commanding the respect of all with whom he came in contact. He was a blunt-spoken man, very droll and quick to speak, but underlying the outward tenor of his ways, was as true a heart as ever beat in man. He was but little before the public and his name was seldom seen in print and it was his wish to have it so. Dr. Rooney had a large practice among the best people of Quincy, but a larger one among the poor and unfortunate, whom he tended kindly and carefully, his only remuneration being the satisfaction of seeing them better and happier. He gave generously but very quietly to various charities. He was a staunch and practical Catholic, and a well-read man, not only in his profession but outside of it, leaving a library of over six hundred volumes. He was broad-minded, progressive, able and generous to a fault, a man of noble impulses, pure motives and superior instincts. His honor was unquestioned, his religious principles strict, his business methods, rigid; in fact his whole life was an inspiration, a blessing, a grand example of noble living. He stood at the head of his profession in Quincy, Illinois, for twenty-six years, ethical in all his dealings with his co-workers. He was very methodical throughout his entire life and by means of this exact method, he gained leisure for extensive reading and study, keeping abreast of medical literature, believing that the true physician owes it to his patients to be familiar with the latest discoveries in medical science. He found his recreation in books instead of society. In accordance with his belief in the duty of a physician to be alert in his knowledge, he took an *ad eundem* degree at Long Island Hospital College in 1874, and a practitioner's course at the Chicago Medical College in 1883. He was a leading member of the Adams County Medical Society, also a member of the Military Tract Medical Society, the Illinois State Medical Society, and the American Medical Association.

He was married June 29th, 1875, at Quincy, Illinois, to Dr. Abby Luella Fox, a physician of the same city. They have

two sons, Paul D., a graduate of Harvard College, and Henry M., a graduate of Boston College, the younger of whom hopes to enter the loved profession of his lamented father.

Dr. Rooney was called out of life in the prime of his strength and usefulness, leaving a void in the affections of the people of Quincy and vicinity and the memory of his good deeds will not soon be forgotten.

DR. ELLA M. PATTON.

Dr. Ella M. Patton, of Quincy, Ill., a prominent member of the medical profession of that city passed from this life in February last, her death resulting from septicæmia, following a surgical operation. At the time of her decease she held the position of vice president of the Adams County Medical Society, the members of which recognized her as "a woman of strong character, noble, generous, merciful, self-sacrificing, fond of books, and interested especially in everything helpful to her own sex. She was engaged in every movement tending toward reform of society, possessed much of the martyr's spirit, and never hesitated to oppose any form of evil through fear of unpopularity." Her funeral obsequies were held in the Unitarian Church in Quincy, which was crowded with mourning friends and weeping patients.

The minutes of the Quincy Medical and Library Association are so full of historic interest regarding Dr. Patton that we cannot do better than reproduce them in full as furnished by the secretary. They are as follows:

- Ella M. Patton, M. D., was born in Shelbina, Mo., Oct. 18, 1860, and died in St. Louis, Mo., Feb. 16, 1899. In the year following her birth she removed with her parents to Quincy, Ill. Her childhood was spent in this city, where also her early education was obtained. She graduated from the Quincy High School on June 14, 1878, and from the Gem City Business College in 1879. Matriculating in the Medical Department of the University of Michigan,

she received from that institution on June 29, 1882, the degree of Doctoris in Arte Medica.

Dr. Patton began the practice of medicine in Rockford, Ill., receiving while there, from the Illinois State Board of Health, her certificate of Registration, dated July 25, 1882. For two years the doctor continued in practice in Rockford, then removed to Tewksbury, Mass., where she served for two years in the Tewksbury Alms House as First Assistant Physician and Surgeon. Completing her term of service in that institution the Doctor returned to this city, where her life's work was so lately finished.

Doctor Patton was a member of the American Medical Association, Massachusetts Medical Society, Illinois State Medical Society, Adams County Medical Society, and the Quincy Medical and Library Association. The Doctor was also a member of the Medical Board and Staff of Blessing Hospital, serving as gynecologist in that institution, and had been, for three years, physician to the Woodland Home for Orphans and the Friendless.

Doctor Patton was a member of the Unitarian Church, Woman's Christian Temperance Union, Cheerful Home Association, Quincy Woman's Exchange, Friends in Council and the Local Council of Women of Quincy.

In the death of Dr. Patton the professional and social organizations with which she was associated have sustained the loss of a most estimable and worthy member. By her death this association loses a member whose professional attainments and womanly virtues had gained for her our highest respect. May the memory of her modest, unselfish, noble life be an inspiration to us in our service to suffering humanity.

Charles W. Rook, M. D.,
Secretary.

DR. ARCHIBALD J. MORTON.

Dr. Archibald J. Morton, of Elmwood, Ill., died in that city of locomotor ataxia, July 1st, 1898, in his forty-fourth year.

He was born in Kilbirne, Ayershire, Scotland, Feb. 1st, 1855.

Dr. Morton took his medical degree from the College of Physicians and Surgeons, Chicago, in February, 1889. He was also a registered pharmacist, and at one time engaged in the drug business. After graduating in medicine he located in Williamsfield, Ill., where he followed his profession for some five years. He then removed to Elmwood, Peoria county, where he formed a co-partnership with Dr. J. D. Hoit and continued in that association up to the time of his death.

Dr. Morton was a man possessing the sterling qualities of his race, a successful practitioner, of unusually genial disposition, and enjoyed keenly the opportunities offered in professional associations. He was for several years a member of the Illinois State Medical Society, and much enjoyed its social features.

VESICULAR DEGENERATION OF THE CHORION.

BY CARL E. BLACK, M. D., JACKSONVILLE, ILL.

I will present for your consideration an unusual case of that comparatively rare condition, "Vesicular Degeneration of the Chorion." Just how rare this disease is no one has yet discovered. One author says that it occurred once in 20,000 labors, while another claims once in 2,000 labors.

I have asked twenty practitioners who have been in practice for at least twenty-five years and have perhaps averaged fifty obstetrical cases each year, how many times they have seen molar pregnancy. One answered "twice," and eight answered "once," making in all ten cases in an estimated 25,000.

To say the least, Vesicular Degeneration of the Chorion is extremely rare, but when it does occur, gives us urgent conditions to be promptly met.

My case is as follows:

Mrs. D——, aged 20 years, called on me Nov. 9, 1897, stating that she had missed one menstrual period and it was now time

for the second, which had not appeared. Examination showed uterus to be about the size of a two-months' pregnancy, and as far as I could discover was normal.

For a number of years she had suffered from severe attacks of headache, accompanied by nausea and vomiting which would come on suddenly, and were accompanied by pain in the right side, near the border of the ribs. She was just passing through one of these attacks at my first examination.

I heard nothing more of the case until a month later when I was called to see her with all the signs and symptoms of hyperemesis of pregnancy. There was constant vomiting with pain in the right side. She was unable to take food or even water.

Careful examination showed the right kidney to be markedly movable over a distance of about three inches and very tender on pressure. Pressure on the kidney would cause severe nausea. After trying the usual plans for two or three days without the least benefit, I determined to anchor the kidney back into its proper place, hoping by that measure to overcome the nausea and vomiting. Patient entered Our Savior's Hospital at once, and the operation was made on Dec. 17, 1897. Without difficulty the right kidney was brought back, through a lumbar incision, to its proper place and anchored with silkworm-gut sutures. Within twenty-four hours the nausea and vomiting had entirely disappeared and the patient was able to take food, and on the eleventh day was considered convalescent with the exception of the necessity of lying quietly in bed until the kidney had time to become firmly imbedded in its new position.

In the early morning of the twelfth day, Dec. 29, 1897, I was called by telephone, the messenger saying that severe vaginal hemorrhage had set in. Supposing that after all, an abortion was pending, I visited the patient at once. To my great astonishment I found my patient almost exsanguinated. The tissues all about the vaginal walls, vulva, and rectum were infiltrated and distended with blood and the vaginal inlet almost obliterated by this infiltration.

I was utterly unable to find the cervix. On examination all that I could discover was a ragged torn opening to the left side of the vagina from which profuse hemorrhage was taking place. Patient had no pains nor had she had any during the night. I tamponed this ragged opening with strips of gauze as best I could to stop the hemorrhage, and used general measures to support the patient. My supposition at the time was that we had an extrauterine pregnancy which had ruptured downward instead of upward. After the tamponing the patient rapidly grew worse until the pulse was imperceptible at the wrist, and the heart-beat could be counted with a phonendoscope at 170. Seeing that the patient would not survive long without something more being done, and believing that there was intra-abdominal hemorrhage as well as vaginal, the patient was taken to the operating room and abdomen hurriedly cleansed and opened by a median incision. The uterus was found normally pregnant, and the tubes and ovaries were normal. One point of difference from normal pregnancy was that the uterus seemed softer than usual.

After closing the abdomen and putting on dressings, the packing was taken out of the vaginal rent. This opening was enlarged and the left uterine artery was ligated, thus putting an end finally to our hemorrhage.

After the infiltrated blood in tissues had somewhat subsided the true nature of our case became plain. Some small vesicles came out through the ragged opening which showed the true character of the trouble. However, the cervix was normal and firmly closed. There were no uterine pains, there was no discharge, nor had there been at any time, either serous or bloody, and there was no way in which I could ascertain that normal pregnancy was not co-existent with degeneration of the chorion. What had happened was the invasion of the uterine wall by the vesicular degeneration and its perforation into the tissues and then into the vagina.

After checking the hemorrhage and mak-

ing free use of normal salt solution in the tissues, the patient rallied and rapidly recovered.

The rent in the vaginal wall healed quickly and completely, although at each dressing for a number of days, several vesicles would be brought out. At the end of five weeks the patient was able to walk about the hospital, and returned to her home which was near by, where she remained five days, when she began to have uterine pains accompanied by some discharge of blood. She returned at once to the hospital, but delivery did not occur for nearly two weeks. After she was put to bed and kept quiet the pain subsided and it seemed as though she might be going on to full term. However, on Feb. 25, 1898, five and one-half months after conception, uterine pains became strong and she was delivered spontaneously of a very large vesicular mole, accompanied by no semblance of foetal tissue. The mass nearly filled an ordinary wash bowl and had the appearance of thousands of white grapes of various sizes. The walls of the little vesicles were thin and filled with perfectly transparent fluid.

Examination of the interior of the uterus showed the whole wall to have been more or less invaded by the degeneration. While the mass discharged seemed to be complete in itself it did not bring away all the vesicular tissue. A few vesicles came away each day in changing the interuterine packing, and it was necessary to thoroughly curette and apply iodine several times before anything approaching a normal condition of the uterine lining was obtained. There was some slight infection and it required three months of almost daily cleansings and packings with gauze to bring the uterus back to anything like a normal condition, and for a time I was of the opinion that it could never be accomplished, and that the safest procedure would be to remove the uterus. However, the daily treatments were persisted in until finally, after four months, the uterus became comparatively normal. One year following the date of de-

livery of the mole the patient presented herself for examination, and I found her again pregnant and apparently normal. I am now watching the case with a great deal of interest to see whether this will also be a molar pregnancy.

The term molar pregnancy should be confined to cystic or hydatiform degeneration of the chorionic villi. (Dropsy of the villi of the chorion, myxoma of the placenta.) "Bloody mole" and "fleshy mole" are from entirely different causes, and are really simply blood clot which has undergone some change. The disease is so rare, and often passes off so simply as to attract little attention from the general practitioner. However, my own case illustrates how complicated a case of vesicular degeneration of the chorion may become, and how urgent the symptoms may be.

We will give a little attention to the literature of the subject.

The most important studies of this subject have been by Dr. G. A. Craigin, who reported in 1892 to the Massachusetts Medical Society, a study of twenty-five cases of hydatiform mole, and by Theophilus Parvin, who published in the American Journal of the Medical Sciences in October, 1892, a study of fifty-four cases mostly taken from German sources.

I have added to these two studies a study of twenty-one cases, including my own, taken from almost as many sources, all American. The facts, therefore, which I will present regarding molar pregnancy represent the summarized study of one hundred cases.

Age of Patients.—Dr. Craigin's cases range in age from 20 to 40 years, with an average of 30 years. The remaining seventy-five cases in the studies range in age from 20 to 46 years. Of these thirty were under 30 years of age, thirty were over 30 years of age, and in fifteen the age was not stated.

Previous Pregnancies.—Of the one hundred cases, fifty-eight were multiparas, and of these there had been one previous pregnancy in ten, two in one, three in one, four in seven, five in eight, six in three, eight in

four, and nine, ten, eleven, twelve and thirteen in one each. In fifteen cases it was not stated whether there had been previous pregnancies, and in twenty-seven cases there had been no previous pregnancies.

Miscarriages.—Fifteen of the cases had had no previous miscarriages. Twenty-five had had previous miscarriages. In the other cases it was not stated. In fifteen out of the one hundred cases a well formed foetus accompanied the mole. In most of the other cases there was no foetus, or parts of foetus.

Recurrences.—The literature of this subject has often stated that the malady is prone to recurrence. This does not seem to be borne out by the one hundred cases studied. Recurrences were only noted in ten cases, and only in three cases was there more than one recurrence. Craigin's report includes one case in which there were ten recurrences.

The Length of Time from the Last Menstruation Until the Delivery of the Mole.—It varied considerably, but averaged about three and one-half months. The largest number of cases (15) were at the third month. The second largest number (10) at the second month. The third largest number (9) in the fourth month. Four were in the first month. Five were in the fifth month. One in the sixth month. Three in the seventh month. One in the eighth month. Four in the ninth month. One in the tenth month. Three in the twelfth month and one in the thirteenth month. In eighteen of the cases the length of time was not stated.

Previous Hemorrhage.—The one great diagnostic point in this disease is hemorrhage. However, we find that out of the one hundred cases twenty-two had no hemorrhage, and nine had but slight hemorrhage previous to the time of delivery. In seven, the hemorrhage was stated as moderate. In sixteen as severe, necessitating delivery, and in six cases there was an intermittent flow, while in twenty-one there was a constant oozing of bloody serum. In the remaining cases the point is not stated. Thus we see in at least one-third of the

cases hemorrhage was either absent or was so slight as to attract no attention.

Method of Delivery.—Forty-seven of the cases were delivered spontaneously. In two, ergot was administered. In twenty-eight manual delivery was necessary. In eighteen the mass was taken with the curette. In the remaining cases the method of delivery was not stated. It is evident, however, that more than half of the cases are delivered spontaneously. But this calls to mind the further point that many moles are probably delivered spontaneously without aid or notice of any physician, and never attract attention of any one.

Vomiting was a prominent symptom in twenty-five cases. Oedema existed in six cases. Convulsions existed in one case.

Cessation of Menstruation.—In one-half the cases menstruation ceased normally and the patient seemed simply normally pregnant. In the other cases the menstruation ceased irregularly, or there was no cessation at all. In these cases the mole was usually delivered early.

Hemorrhage at Delivery.—One-third of the cases were accompanied by severe hemorrhage at the time of delivery.

Mortality.—Of the one hundred cases, five died from two causes, three from shock of hemorrhage and two from subsequent sepsis.

Size of Uterus.—In most of the cases no mention is made of the comparative size of the uterus. In nine, however, it is stated that the uterus seemed normal for the term, while in sixteen the uterus seemed larger than normal, and in one it was smaller than normal.

The one hundred cases summarized above were from the reports of Craigin, Parvin, Ayer, Lee, Lewis, Furness, Zwinshon, Murray, Bethune, Warman, Bowers, and my own case.

Summary.—From the reports studied we are brought to very few definite conclusions about this disease. These reports, like many others, are each one lacking in some important part, so that the summaries from them are more or less incomplete and the conclusions may be correspondingly inac-

curate. In some instances the reports are too meagre to be of much value. The main facts of one hundred cases of molar pregnancy observed by many reporters are given as accurately as possible, and you must be left to judge of their value.

The etiology and pathology of the disease are shrouded in obscurity. Why the chorionic villi should be attacked by cystic degeneration in certain cases is unexplained. Several authors have attributed it to endometritis, and no doubt disease of the endometrium may be an important factor. However, very few of the reporters suggest endometritis as a causative factor or even mention it in the history. The fact that the majority of cases occur in multipara, and that a considerable number of cases are preceded by miscarriage would give some support to the theory that endometritis was a cause.

Diagnosis.—We must conclude from the study of these cases that the diagnosis prior to the time of delivery is impossible, excepting in a limited number of cases. There are no positive signs or symptoms. In a great majority of cases the enlargement of the uterus is not materially different from that of a normal pregnancy.

Vomiting is given as a prominent and valuable symptom by one author, but we find in these cases that it occurs so infrequently as to be of really no value, unless supported by other more positive evidence.

While most of the cases occur in multipara, a very respectable number will be seen to have occurred in nulipara. The only symptom which is constant enough to be of value in diagnosis is the discharge of blood serum and blood over a considerable period prior to delivery. When we meet this condition we should be on our guard for molar pregnancy.

Persistent vomiting in a multipara in the early months after conception with abnormal enlargement of the uterus, and intermittent or constant discharge of bloody serum and blood, would give us the ideal clinical picture of a vesicular degeneration of the chorion.

The Illinois Medical Journal

PUBLISHED MONTHLY.

Official Organ of the Illinois State Medical Society.

Committee on Publication:

E. W. WEIS, M. D., Chairman, Ottawa.

H. N. MOYER, M. D., Chicago.

G. N. KREIDER, M. D., Springfield.

All communications should be addressed to E. W. WEIS, Secretary, Ottawa, Ill.

The Society does not assume responsibility for any statements or opinions published in this journal.

Entered at the Postoffice at Springfield, Ill., as second-class matter.

Printed at Springfield, July, 1899.

ANNOUNCEMENT.

A motion was made by Dr. George N. Kreider, our Treasurer, at the Cairo meeting of the Illinois State Medical Society, recommending the publication of its transactions in journal form, to be issued monthly, which was referred to a committee for further consideration and recommendation. President Pitner appointed on this committee Drs. E. P. Cook, John H. Hollister, C. B. Johnson, Carl E. Black and J. W. Pettit. The report of the committee (in part), "recommended that the method of publishing the transactions as heretofore adopted, be changed and that they be journalized, the issue of the Journal to begin on the 1st of July, 1899, and thereafter on the first of each month, to be designated as the Journal of the Illinois State Medical Society. The cost of its publication for the year shall not exceed the income of the Society, less other necessary expenses."

This report was finally referred to the Judicial Council with power to act. At a meeting of the Judicial Council, a resolution was adopted, authorizing the Committee on Publication to journalize the trans-

actions as above stated, for the ensuing year.

We do not wish to enter into any argument regarding the advisability of this new movement. We want to state, however, that the only and sole object of this movement is to increase the membership of this Society. That something should be done to increase the interest of the medical profession of the State of Illinois in society work cannot be gainsaid. When we consider that in a state with about ten thousand regular physicians, the membership of this Society is but between five and six hundred, something out of the ordinary course must be adopted. With a net annual increase for the last ten years of fifteen members, and that including a new membership of seventy at the Galesburg meeting, proves conclusively that there is a woeful lack of interest.

By the old method of publication, only about five hundred copies were sent to members, but by this, one thousand copies will be printed, for the committee will be enabled to publish one thousand copies monthly of the Journal for about the same price that it cost to publish in book form. This number will allow us to do considerable judicious missionary work, and we sincerely trust, that by this means, the object aimed at may be accomplished.

It must be distinctly understood that it is not the intention to make this a Medical Journal, in the true sense of the word, for we disclaim the notion of entering the journalistic field, first, because of our inexperience in editing such a Journal, and second, because there are now too many medical journals. What we propose to do, however, is to attempt the issuing of the Journal in such form that it shall become the organ of all medical societies in the

state, and that the physicians of the state can feel that it is devoted to their best interests. To accomplish this, we earnestly ask the support and assistance, not only of the officers of the societies, but all physicians, whether members of the Illinois State Medical Society or not. While fully appreciating the added amount of work laid upon us by this method, we do not shirk the responsibility, and if our brothers in the profession will show only a modicum of interest in the welfare of the Society, by their assistance, we have not the slightest doubt but that the results will prove the wisdom in this departure.

The criticism has been made that the monthly journal will not be kept as a reference book, because so few of them will have them bound. While this may be true of some, yet that is a matter of individual choice. It is as a monthly visitor, a monthly reminder of the existence of the Society, constantly and conveniently at hand, lying on our desk rather than a volume which is placed on the shelf and rarely looked at (we are sorry to admit), that the beneficial change is expected. W.

SOME COMPARISONS.

A new underfaking like that which this publication exemplifies should, like a marriage contract, not lightly be entered into. At the beginning we may properly survey the field and make some comparisons with other enterprises of a like nature undertaken by other societies. At the present the most conspicuous success of society journalism is the Journal of the American Medical Association. The circulation of this excellent publication now reaches quite 12,000 copies and the contributions are of an admirable character. It is noth-

ing but the truth to say that the American Medical Association, when it began to print its transactions in journal form, was a small and feeble organization. No one will now deny that its journal is its tower of strength. To return to the publication of its transactions in the old form is not to be considered for an instant. The first number of the Journal of the American Medical Association was issued July 7, 1883. In the issue of July 14, 1883, the Treasurer, Dr. Richard J. Dunglison, presents his report from which some details, interesting to the members of our Society at this time, may be drawn.

On the debit side of his account we learn that he received dues amounting to \$4,535.00, showing that the total membership of the representative medical organization of the United States, with its 70,000 regular physicians, was at that time 907. The balance on hand at the close of the year was \$903.68, showing that the society after an existence of thirty-five years had accumulated less than \$1,000.00.

On the credit side we learn that the cost of printing the last volume of Transactions, that of 1882, was \$1,534.54. Each week now the association expends for its journal a sum nearly equal to its former annual expenditure for a volume of transactions.

Now, as to the condition of the Illinois State Medical Society at the time when it undertakes the publication of its transactions in monthly journal form, we find that the average paying membership for the past three years has been 510. The average amount expended for the yearly volume of transactions has been about \$800. Back of the 510 active members of the State Medical Society are the 8,000 or more physicians of the state who should

be and who we hope soon will be interested in the work of the society and supporters of its publication. It will readily be seen from the facts above given that the society is certainly in as good position for its new venture as was the American Medical Association when it began to journalize. It is in even better position, for our Society undertakes a monthly publication only while the national society undertook a weekly, with comparatively no more resources than we have now. Moreover, we run no financial risks in our venture, since the total cost of 1,000 copies monthly of the journal will be less than the cost of issuing 600 volumes of Transactions containing about one-half the amount of matter.

K.

OF ASSISTANCE TO LEGISLATIVE COMMITTEE.

The decision to publish the State Society proceedings in journal form is a wise one and the results will prove it. In addition to publishing the proceedings it will afford a valuable and much needed means of communication with the members. The difficulty and expense of communicating with the profession in any effort where co-operation is necessary has made it impracticable to attempt many things which should have been done and imperiled the success of those which were undertaken. For example take the work of the Committee on Medical Legislation during the past three years. If we had had a journal the work of that committee could have been done much more efficiently and economically. The work of this committee has only fairly begun. The medical practice act which has just gone into effect will fail of its purpose unless sustained by the best professional sentiment of the physicians of the state. To this end it is necessary to bring

the profession into closer touch with the State Board of Health and each other.

This board is a creation of the Illinois State Medical Society. If it has not at all times been in close affinity with the State Society, it is because the Society has become estranged from the Board and not the Board from the Society. The relations now existing between these two bodies are most cordial, all the eligible members of the Board now being members of the Society.

The new medical practice act will meet with much opposition from without the ranks of the profession and covert attacks from within. The Board will need the sustaining influence of the professional sentiment in enforcing the law, otherwise it will fail in its work of purifying the ranks of the profession. The Society Journal will make this possible. This reason alone is sufficient for its existence. P.

Correspondence.

To the Editor:

We can not help but regard the decision of our society to publish its transactions in journal form as an advance step. There are about 8,000 regular practitioners in the state of Illinois, and yet how few of them are known to any one man. The Illinois State Medical Society is supposed to represent these practitioners, but less than 10 per cent of them are enrolled as its membership. It has been evident for a number of years that the great body of regular practitioners was not interested sufficiently in the work of the state society to become members of it. This no doubt is largely due to a lack of acquaintance with its aims and work. There is need that more active and comprehensive measures be undertaken for the unification of the profession. Through a journal this can be done. It is true that we have already quite as many medical

journals as there should be, and, in fact, some could be well dispensed with. However, there is no journal which represents this society. In fact there is no editor in the state of Illinois who has the interests of the Illinois State Medical Society primarily at heart. Consequently the society gets little or no assistance from existing journals, and it is forced to establish one which will be distinctly its own.

In the past the Illinois State Medical Society has had only two ways of approaching the membership. First, the annual meeting. Second, circulars and letters written by its officers and committeemen. Such circulars and letters are extremely unsatisfactory, and at the same time expensive.

With a journal all circular communications and many letters will naturally appear in its columns, and all will look there for information.

We would like to call special attention to the desirability of the state society making a thorough canvass of the physicians of the state.

It would be desirable to put a good man, preferably a doctor, on the road to take subscriptions for the Journal and memberships in the society, and incidentally to tabulate each man's position regarding the work of the state society. The state society as a body should have a report of every regular practitioner in the state. We should know why he does not belong to the society. Whether or not he belongs to a local or other medical society. Whether there is a local medical society to which he could belong, and if there is no society near him, what the prospects are for organizing a medical society in his locality. Such a canvass of the state, taking in every regular practitioner, would increase the membership in the state society many fold. Such a representative traveling over the state could easily make his arrangements so as to attend the meeting of every medical society, and could bring back to the society's annual meeting a report of all local societies. All this information should be kept on file in the office

of the secretary and a bureau of valuable information established.

These suggestions were made to the committee which considered the adoption of the Journal plan for the ensuing year at Cairo. More recently, President Matthews at the meeting of the American Medical Association made similar recommendation for that body in his annual address,

We quote from his address as follows:

"Let a suitable man be selected, preferably a doctor, to travel in its interest, thereby increasing the membership of the association. This agent, secretary, assistant secretary, or whatever you may choose to call him, to solicit subscriptions for the Journal and encourage membership. He should visit the meeting of each state society, district and county society, besides calling on individual members of the profession. Of course, only those who are indorsed by accepted or recognized organizations can become members of this association. There are many hundreds of worthy physicians in the United States who would readily join the mother society if properly approached. Many, very many of them are ignorant of the manner of becoming members. It may be urged that the salary necessary to secure such an agent would be too large to justify the employment of such. In refutation I would urge that by such individual solicitation many more would be added to the membership than would be necessary to pay said salary, and they would become permanent members. It can be said, especially to young men, that the mere wearing of the button of the association adds dignity and confidence. Then, too, it can truthfully be asserted that the Journal alone is worth more than the sum paid for membership. By this means I am sure that the treasury would be so increased as to enable the Journal to be the peer of any published. Besides, our ranks would be so increased as to make this association not only the largest, but the most important in all the world."

That part of the work of such a canvass of the state as relates to medical societies

and their organization would naturally fall to the committee on medical societies, for supervision.

This brings us to the further thought that each of the standing committees of the society should have a department in the Journal devoted to its work. In this way the committees could keep the membership informed as to their work, and the membership would know what each committee was doing. This would give us several good departments which could be made of great interest and profit.

The committee on Medical Societies could always keep us posted on the work of the various societies in the state, and through the Journal could give material aid to the formation of new societies.

The committee on Medical Legislation would have a much better opportunity to secure the co-operation of the profession through a journal than through circulars, which they have had to depend on in the past.

The committee on Necrology and Biography could always furnish the Journal with interesting reading. In fact, each committee would be able to furnish during the year much interesting matter relating to its special department of work in connection with the state society.

We are heartily in favor of this Journal, and have no doubt our energetic secretary will make it a success if he can secure the co-operation of the society membership.

In brief, it should be the aim of our society to become personally acquainted with every regular practitioner and every regular medical society in the state of Illinois. With the assistance of a well organized journal this can be accomplished during the next few years.

Carl E. Black.

Jacksonville, Ill., June 23.

The Jenner Medical College has decided to waive the exemption of its graduates from state examination. The college has concluded to become a member of the Association of American Medical Colleges.

Society News.

The Publication committee of the Medical Society of the State of California, is to be congratulated upon the early appearance of the current year's volume of the Transactions. The Society meeting was in April. It is a handsomely bound volume of 410 pages.

The Illinois Society for the Prevention of Consumption was organized in Chicago, June 20, under the auspices of the Chicago Medical Society. The purpose of the Society, as stipulated in its constitution, is a crusade against tuberculosis among human beings as well as among cattle, and urge prompt legislation in Illinois to that end. The formation of the society was declared to be the result of the recent public awakening to the danger of tuberculosis. The purposes of the Society as set forth in the article, embodied in the constitution and presented by Dr. Reynolds, was as follows:

This society is formed for the purpose of preventing tuberculosis by the education of public opinion and the stimulation of individual initiative by means of a central bureau for the collection of information as to modes of diffusion of tuberculosis and measures of prevention; by the circulation of pamphlets and leaflets setting forth in plain language the results of scientific investigation of the above points; by public lectures by persons approved by the society; by addresses at congresses and other public gatherings; by co-operation with other societies having for their object the promotion of public health; by securing the co-operation of the press; by the holding of periodical congresses and the issue of annual reports; by the promotion of the establishment on a self-supporting basis of open-air sanatoria for tuberculous patients; by influencing legislatures, city councils, and other public authorities on matters relating to the prevention of tuberculosis.

OFFICERS OF THE SOCIETY.

The officers of the society were elected as follows:

President—John McLaren.

First Vice President—Dr. W. A. Evans.

Second Vice President—Dr. Theodore Klebs.

Third Vice President—Dr. A. H. Baker.

Secretary—Dr. John A. Robison.

Treasurer—Elbridge Keith.

Counselor—John P. Wilson.

Trustees—For one year, Dr. Frank Billings, Dr. J. B. Murphy, Dr. T. W. Miller, A. H. Baker, Dr. Joseph Hughes; for two years, Mayor C. H. Harrison, Otto Young, Dr. N. S. Davis, L. O. Goddard, Dr. A. R. Edwards; for three years, Arthur Dixon, D. B. Scully, E. B. Guler, John B. Sherman.

The organization of the society was preceded by a meeting of the Chicago Medical Society, at which a committee on tuberculosis, appointed last December, reported on means for the formation of a tuberculosis society. The report was adopted.

—

In 1897 the Pennsylvania State Medical Society began to issue its Transactions in monthly journal form. After two years' trial of this plan the trustees at the annual meeting held in May reported on this subject as follows: "On account of the general favor and success of the publication of the transactions of the society in the form of a monthly journal, which has tended to unite the membership more closely and to stimulate a livelier interest in the proceedings of the society through out the profession of the state, the board recommends that the publication of the Transactions of the Society be continued in the present form, and that the board of trustees be authorized, for advantageous reasons, to execute a contract for two years, upon the same terms as paid during the past year."

Regarding the policy of the Journal the following report is made by the committee on publication; the society's Transactions were given wide publicity, and its readers greatly increased, for many of the papers

were reproduced or abstracted in other journals.

By reason of the increase in the size of the Journal, the transactions of the meeting at Lancaster required only about one-half the space available. A large portion of the remaining space was devoted to the publication of the more important papers read at meetings of county societies throughout the state. This feature, it is believed, is a valuable one to both the State Medical Society and the affiliated county societies. Should the number of papers offered increase during the coming year, in the same ratio as during the past, a further increase in the size of the Journal will become necessary in order that they may be published.

In publishing the addresses and papers, the same method has been pursued as during the year before, the order of publication being in keeping with the program of the meeting, except in the case of those addresses or articles already published in other journals; these were held until all the others were published, after which they were inserted under the heading of "Secondary Department of official transactions." This plan, it is believed, is a just one to all concerned, for under it, the earliest possible publication of all papers is assured. Reprints, whenever desired, have been furnished at cost, the advertising pages, have, as heretofore, been kept free from all advertisements of proprietary, trademarked or patented medicines. The revenue of the Journal has thus been kept within ethical bounds, but in consequence at a comparatively low ebb.

The committee again respectfully recommends that all addresses and papers read at the annual meetings, be first published in the official organ of the society, this rule, however, not to prevent the publication of abstracts in other journals.

The committee recommends, in conclusion, that a reporter be appointed by each County Medical Society, whose name shall appear on the editorial page of the Journal, and whose duty it shall be to furnish abstracts of the proceedings of the County

Society, notes, and other matters of interest to this society.

The salaries paid by the Pennsylvania State Medical Society are: Secretary, \$300; treasurer, \$150. For publishing 4,000 copies per month of the Transactions in monthly journal form the society pays \$3,000 per annum.

In 1898 the society appropriated \$2,000 to the Rush Monument fund to be held in trust by the board of trustees. The trustees have deposited this sum in a savings bank paying 3 per cent interest:

Thursday, June 8, 1899, at the military school of Val de Grace a monument was unveiled to the memory of Baron Hippolyte Larrey, for many years professor of pathological and clinical surgery in that school. Baron Hippolyte Larrey was the son of that Baron Jean Larrey who shed undying lustre on military surgery and who was pronounced by Napoleon First the best of surgeons and the most honest man he had ever known. While his fame was somewhat overshadowed by that of his distinguished father yet his devotion to scientific truth, the honor of the medical profession and the memory of his father, gave him a high place among his colleagues, who have thus honored his industrious life and pure character.

Under the new medical practice act, the Board of Health of the state has adopted the following rules governing examinations: The board will require a diploma from some first-class recognized school of medicine; the applicant will be examined in anatomy, physiology, chemistry, pathology, histology, obstetrics, diseases of women, materia medica and therapeutics, practice of medicine, hygiene and medical jurisprudence. Applicants who do not administer medicines either internally or externally, and who do not call themselves "physicians," will be examined in anatomy, physiology, physiological chemistry, histology, pathology and hygiene.

Many practitioners labor under the mis-

taken impression that a renewal of license is necessary. Only those desiring to begin practice after July 1st are required to comply with the new law.

State Items.

Dr. C. A. Winn has located in Springfield.

A new hospital has been opened at Carlinville.

Dr. D. A. Drennan, of Pawnee, has located in Springfield.

Dr. W. C. Johnson, late of Pawnee, has located in Springfield.

Dr. W. T. Short has located in Grove City, Christian county.

Dr. Thomas L. McQuaide, of Dana, has removed to Mt. Vernon, Ill.

Allen G. McConkey, M. D., Modesta, Ill., died June 13, aged 28 years.

Dr. C. H. McElfresh, Marion Sims Medical college '98, has located at Dawson.

The Chicago College of Medicine, Surgery and Hygiene, has been incorporated.

Business men of Sycamore held a meeting to take steps to establish a city hospital.

Dr. H. H. Tuttle, of Springfield, is pursuing post-graduate studies in Berlin, Germany.

Fred S. O'Hara, M. D., Marion Sims Medical college '99, has located in Springfield.

Dr. William F. Robinson, one of the instructors of Rush Medical College, died on May 12.

Dr. Cale W. Coe, formerly of Grove

City, has located in Stonington, Christian county.

Dr. Charles H. Walters, formerly of Farmingdale, has located on North Fifth street, Springfield.

The fourteen months old son of Dr. and Mrs. R. M. C. Ball, of Monmouth, died June 22 of pertussis.

Dr. E. W. Olliver, of Wenona, has recently been taking post-graduate instructions in New York city.

Dr. Lee Hagler, Rush, '99, has located in Springfield and is associated with his brother, Dr. E. E. Hagler.

Dr. John W. Cantrall, formerly of Mt. Auburn, Christian county, has located at Rochester, Sangamon county.

It is reported that the senatorial investigating committee will inquire into the affairs of the Cook county hospital.

The Champaign County Medical Society celebrated its fortieth anniversary by holding a banquet at Beardsley recently.

Steps have been taken to establish, in connection with the State University, a school for the instruction of municipal health officers.

Dr. J. C. O'Conner, of Buffalo, was elected physician to the Sangamon county poor farm at the May meeting of the board of supervisors.

It has been decided that hereafter all Cook county hospital physicians shall be required to give their testimony free at all coroner's inquests.

At the recent meeting of the Hancock County Medical Association, Dr. William Booz was elected president and Dr. R. L. Casburn, secretary.

Dr. E. E. Perisho and Miss Jennie McKinney, both of Ancona, were united in marriage at the Sherman House, Chicago, on the 27th of June.

The practicing licenses of H. E. Colby, who has lived at 4 Kedzie avenue, and William F. Hughes, 223 North Kedzie avenue, Chicago, were revoked.

Dr. W. A. Brittin, formerly of Morrisonville, Christian county, has located in Auburn, in the office made vacant by the death of Dr. S. C. Ham.

A. W. Barker, M. D., Barnes' Medical College '99, has located in Springfield. He was elected city physician at the May meeting of county supervisors.

Dr. J. F. Grinstead has been appointed surgeon in charge of the Wabash hospital at Springfield, vice Dr. P. H. Fithian, resigned, effective July 1, 1899.

Dr. William E. Quine has withdrawn his resignation as dean of the College of Physicians and Surgeons, the medical department of the University of Illinois.

Dr. Margaret Shutt, Cornell University '99, is spending the summer at her home in Springfield. She will spend the coming winter in post-graduate studies abroad.

Dr. J. S. Miller, wife and son, Dr. Sumner Miller, of Peoria, sailed for Europe Thursday, June 29, to attend clinics during the summer and tour interesting localities.

Dr. E. J. Brown, of Decatur, returned May 25 from a two semesters study in Vienna. Dr. Brown was highly pleased with the facilities for medical study offered at the Austrian capital.

Among the new members of the State Medical Society in Sangamon county are Drs. N. B. Gardner, of Loami; T. A. McTaggart, of Pawnee, and J. M. Duncan, of

Pawnee. These gentlemen attended the meeting at Cairo.

Dr. S. E. Munson, formerly located in Mt. Pulaski, has returned from Vienna, where he has been taking clinical work in the Allgemeines Krankenhaus. His wife, and daughter Mary, born in Germany, accompany him.

The Rush Medical College held its commencement exercises on Thursday afternoon, May 25. Rev. Andrew Morrissey, president of the Notre Dame University, delivered the address to the graduates, of which there were 167. The Alumni association gave its annual banquet at the Auditorium.

The Illinois University at Champaign is at present engaged in a study of the ground waters of the state, i. e., waters from wells, springs, tile drains, etc., the purpose of investigating the nature of the ground water supplies, as regards their wholesomeness for domestic uses, and their servability for industrial purposes. The department of Chemistry of the university, by which this water survey is conducted, would be glad to obtain information concerning the location of springs, flowing wells, etc., and particularly as to the depths at which good waters are found in the various sections of the state.

Dr. B. F. Fowler, of Galena, Ill., died July 16, aged 74. He was a physician of that city for thirty-five years and widely known in Masonic, Odd Fellow, and Knights of Pythias circles. As an alderman, member of the board of education, as president of the Grant Birthday association, as an officer in different orders, as vice president of the Jo Daviess County Medical association, as examining surgeon of the Pension bureau, as a citizen and practicing physician, he was noted and his services greatly appreciated. He is survived by his widow, sons, Dr. Charles A. Fowler, Bellevue, Ia.; B. F. Fowler, Jr., ex-Attorney-

General, Cheyenne, Wyo.; daughters Almira M. Fowler, Mrs. Anna Rogers, both of Galena, and Mrs. G. T. Budrow, of Cheyenne, Wyo., and brother, Dr. H. M. Fowler, Scalesmound, Ill. Burial with Masonic honors.

At the meeting of the State Board of Health, recently held in Chicago, considerable interest was manifested by the members concerning the course of instruction for local health officers, which is now being given by the Ohio State University to the health officers of Ohio, acting upon the suggestion and under the advice of the State Board of Health. As in Illinois, so many health officials are laymen, who naturally are deficient in sanitary and hygienic attainments, the board considered that a course at one of the universities of the state relative to the disposal of sewage, also a better knowledge of water supplies, milk and meat inspection, disinfectants and disinfecting, hygiene, and sanitation in general, especially if municipalities would appoint none but men who presented certificates of qualification. The board, therefore, in a resolution, heartily approved of the idea and recommended its adoption in Illinois.

The bacteriological department of the University of Illinois is conducting some interesting experiments for the State Board of Health, upon the disinfection of rooms and other apartments. These tests are made by the use of formaldehyde, by various methods. Artificial cultures of several virulent germs are exposed in rooms, which are then treated for a given length of time with the disinfecting material, and the results upon the germs so exposed are afterward determined. The work so far shows that the process may be entirely successful if the bacteria are in a moist condition, but if dry they are not usually killed. In infected rooms, railway coaches, etc., the contaminating germs of diphtheria, measles, tuberculosis, or pathogenic kinds of bacteria, are mostly in the dry state, and any process of disinfection must kill them in that condition.

List of members in attendance at the Cairo meeting, May 16th, 17th and 18th, 1899 (in order of registration).

E. W. Weis, Ottawa.
 W. F. Grinstead, Cairo.
 W. K. McLaughlin, Jacksonville.
 J. C. Sullivan, Cairo.
 G. N. Kreider, Springfield.
 John H. Hollister, Chicago.
 E. P. Cook, Mendota.
 George F. Butler, Chicago.
 J. N. Hopkins, Burnt Prairie.
 A. C. Cotton, Chicago.
 Carl E. Black, Jacksonville.
 J. W. Hairgrove, Jacksonville.
 D. W. Edmiston, Clinton.
 H. McKennan, Paris.
 F. B. Pitner, Clay City.
 G. T. Ragan, Neoga.
 H. A. Chapin, White Hall.
 Charles B. Johnson, Champaign.
 Chas. D. Center, Quincy.
 Frank P. Norbury, Jacksonville.
 Thomas J. Pitner, Jacksonville.
 H. S. Worthly, Elwood.
 L. P. Baltzer, Cairo.
 J. A. Egan, Springfield.
 J. A. Baughman, Neoga.
 J. W. Murfin, Vernon.
 J. S. Morton, Vernon.
 W. W. Murfin, Patoka.
 J. D. Camerer, Kinmundy.
 J. W. Pettit, Ottawa.
 George W. Webster, Chicago.
 A. I. Bouffleur, Chicago.
 E. H. Ochsner, Chicago.
 D. W. Graham, Chicago.
 Chas. True, Kankakee.
 Elbert Wing, Chicago.
 J. E. Palmquist, DeKalb.
 T. W. Williams, Casey.
 N. W. Haslit, Dalton.
 Frances Dickinson, Chicago.
 Daniel R. Brower, Chicago.
 M. L. Harris, Chicago.
 A. E. Halstead, Chicago.
 Denslow Lewis, Chicago.
 Wm. H. Wilder, Chicago.
 Sam B. Cary, Cairo.
 P. H. McRaven, McClure.
 W. J. Fernald, Rantoul.

S. M. Wylie, Paxton.
 E. J. Senn, Chicago.
 Hugh T. Patrick, Chicago.
 John E. Allaben, Rockford.
 H. W. Woodruff, Joliet.
 W. X. Sudduth, Chicago.
 T. W. Werner, Joliet.
 H. M. Leeds, Allendale.
 Arthur R. Elliott, Chicago.
 A. G. Mizell, New Burnside.
 M. L. Winstead, Dongola.
 B. F. Wilson, Cairo.
 S. C. Hall, Omaha.
 J. Homer Coulter, Chicago.
 W. S. Caldwell, Freeport.
 I. N. Bourland, Equality.
 R. J. McMurray, Linn.
 Effie L. Lobdell, Chicago.
 O. B. Will, Peoria.
 A. A. Bondurant, Cairo.
 John B. Young, Golconda.
 H. W. McCoy, Golconda.
 J. A. Womack, Karbers Ridge.
 C. S. Blackman, Hicks.
 W. J. Chenoweth, Decatur.
 T. Gaffner, Trenton.
 J. D. Hart, Simpson.
 M. J. Kerley, Simpson.
 H. W. Hunt, Chicago.
 J. A. Helm, Metropolis.
 F. E. Wallace, Monmouth.
 J. F. Dicus, Streater.
 W. C. Clark, Cairo.
 Joseph Robbins, Quincy.
 H. C. Jones, Decatur.
 J. B. Maxwell, Mt. Carmel.
 Chas. C. Hunt, Dixon.
 Geo. C. Baker, Woburn.
 John T. McAnally, Carbondale.
 O. M. Slater, Garrett.
 C. S. Brown, Chicago.
 G. A. Clotfelter, Hillsboro.
 Wm. M. Sharp, New Douglas.
 Carl Wagner, Chicago.
 Jacob Schneck, Mt. Carmel.
 J. C. Harmon, Rantoul.
 C. W. Putney, School.
 C. Barlow, Robinson.
 Bertha Van Hoosen, Chicago.
 J. J. Rendleman, Cairo.
 Karl Doepfner, Chicago.

H. W. Chapman, White Hall.
 C. W. Cargill, Mason City.
 J. W. Boling, Omaha.
 Henry F. Lewis, Chicago.
 R. H. Henry, Peotone.
 A. C. Corr, Carlinville.
 A. K. Van Horne, Jerseyville.
 T. A. McTaggard, Pawnee.
 D. Warson Grear, Jonesboro.
 Allen T. Haight, Chicago.
 L. D. Keith, Anna.
 Maximilian Herzog, Chicago.
 H. V. Ferrell, Carterville.
 J. I. Hale, Anna.
 N. M. Fringer, Pana.
 H. C. Mitchell, Carbondale.
 Alex. Hugh Ferguson, Chicago.
 M. Meyerovitz, Chicago.
 Chas. B. Reed, Chicago.
 E. Wyllys Andrews, Chicago.
 Harold N. Moyer, Chicago.
 E. M. Sutton, Peoria.
 Bayard Holmes, Chicago.
 J. T. Lloyd, Pulaski.
 C. M. Galbraith, Carbondale.
 A. M. Lee, Carbondale.
 J. M. Duncan, Pawnee.
 J. R. Kewley, Chicago.
 Thomas Morgan, Goreville.
 I. N. Danforth, Chicago.
 J. W. Boyles, Clay City.
 J. F. Hangan, Mound City.
 E. V. Hale, Anna.
 Geo. S. Edmonson, Maroa.
 Simon Willard, Mound City.
 S. C. Martin, Anna.
 F. H. Jenks, Elgin.

ALLEGED HEIR OF A REVOLUTIONARY HERO.

Gen. Hugh Mercer, to whose estate little Leslie Davidson, the Louisville waif, is said to be an heir, was one of the bravest soldiers of the revolutionary war. When the shot was fired at Concord "that echoed round the world" he was a physician at Fredericksburg, Va. He at once gave up his practice and organized three regiments of minute men. He was killed on the bat-

tle ground of Princeton, in 1776, after having been captured by the British. His youngest son, Colonel Hugh Mercer, was, by provision of Congress, educated at the expense of the United States government. In 1854 he was still living on his estates at Fredericksburg, at the age of 80.

Chicago News Items.

Dr. and Mrs. Starkweather have returned from Europe and are at the Auditorium for the summer.

The wedding of Miss Bertha Felsenthal and Dr. Edward A. Fischkin took place Thursday at the residence of the bride's parents, the Rev. and Mrs. Bernhard Felsenthal, 3309 Rhodes avenue.

Dr. Daniel R. Brower will leave for Honolulu on Friday, to be absent six weeks.

Miss Anna R. Bentley and Dr. George J. Dennis were married on Wednesday at the residence of the bride's brother, Mr. Cyrus Bentley, at Elmhurst. Dr. and Mrs. Dennis will spend the summer in Europe and will be at home after Jan. 1 at the Lakota hotel.

Dr. and Mrs. V. A. Bergeron announce the wedding of their daughter, Miss Loretta Blanche Bergeron, to Mr. Charles Frederic Messinger on Thursday. Mr. and Mrs. Messinger will be at home after July 15 at 801 Turner avenue.

The closest examination of applicants desiring to practice medicine in Illinois will be made. When the new amendment to the corporation act becomes operative, on July 1, Attorney John A. Barnes, counsel for the board, will take up the fight against "fake" medical schools and other institutions which have been selling diplomas without requiring sufficient evidence of qualification on the part of the applicant.

THE DOCTOR.

The doctor is a useful man,
 Constructed on a noble plan;
 He's sometimes fat and sometimes lean,
 And sometimes just half way between,
 But none confers more blessings than
 The doctor.

The doctor goes and lingers where
 Men's moanings freight the fetid air;
 Where'er he can, he gives relief,
 In sickness and as well in grief;
 Ah, ill could we poor mortals spare
 The doctor!

He may some stately palace own,
 All silk inside and outside stone;
 But still, in healing human woes,
 Like some baseburner stove he goes,
 And never sleeps—as far as known—
 The doctor.

We may not know him when this shell
 Of clay befits the spirit well,
 But when the spirit doth protest
 Against the flesh that doth invest,
 Our griefs in confidence we tell
 The doctor.

The doctor is a generous man,
 But people cheat him when they can;
 They have their health restored "on trust,"
 And pay him sometimes when they must,
 And swear no bill is bigger than
 The doctor's.

—Columbus, O., Dispatch.

The Aesculapian claims to be the oldest medical society west of the Alleghenies, being chartered in 1847; the fiftieth anniversary was observed in May, 1897, at Campaign. The society divides its work into three sections: Section one, materia medica and therapeutics and practice of medicine; section two, surgery and obstetrics; section three, etiology and medical jurisprudence.

The Illinois State Board of Health has just issued a small volume of sixty pages on the "Poisonous Plants of the United States." The publication and distribution of this little volume is to be commended. It is nicely illustrated by original drawings from authentic specimens of the important poisonous species. What will interest the physicians most is the treatment prescribed and the antidotes to be administered.

PRESERVE THE JOURNAL.

Members of the Society and profession would do well to preserve this issue of the JOURNAL. The edition is limited and every copy printed will be mailed to some person with the hope that he will become a subscriber and a member of the Society. If you do not desire to become a subscriber to the JOURNAL please inform the Secretary so that he may know where copies may be obtained for those who may wish to obtain them. He will, of course, pay for them at the regular price, 25 cents for each copy.

Officers of the different county, district and city medical societies will confer a favor on the JOURNAL by sending at once a list of the members, names of officers and the next place of meeting.

Be sure to mention the State Medical Society to your neighboring colleagues. Show them the JOURNAL and ask them to join the Society. Young men, particularly, should become identified with the Society.

Members of local societies can become members of the State Society by sending \$3.00 to the Treasurer, Dr. G. N. Kreider, Springfield. He has, or will have, certified copies of the membership of each local society, and in this manner the old plan of certificates will be avoided.

The efforts of the State Board of Live Stock Commissioners have tested numerous herds of cattle throughout the State, in many of them, animals apparently healthy, have reacted to the tuberculin. The publicity given these tests has created great consternation among the laity. In many families the use of milk has been entirely abandoned.

Doctors should "drink less, breathe more; eat less, chew more; ride less, walk more; clothe less, bathe more; worry less, work more; waste less, give more; write less, read more; preach less, practice more."

MEDICAL SOCIETIES.

AESCULAPIAN SOCIETY OF THE WABASH
VALLEY.

President, J. D. Mandeville, Philo.

Vice President, J. P. Worrell, Terre Haute, Ind.

Secretary and Treasurer, H. McKennan, Paris.

Chairman of Section One, L. J. Weir, West York.

Chairman of Section Two, J. C. Dodds, Tolono.

Chairman of Section Three, Z. T. Baum, Paris.

The next meeting will be held at Paris, Oct. 26, 1899.

BRAINARD DISTRICT MEDICAL SOCIETY.

President, Dr. F. M. Coppell, Havana.

Vice President, Dr. J. A. Barnett, Lincoln.

Secretary, Dr. Katharine Miller, Lincoln.

Treasurer, Dr. Charles C. Reed, Lincoln.

Meetings held the fourth Thursday of January, April, July and October. Next meeting at Mason City.

CHAMPAIGN COUNTY MEDICAL SOCIETY.

President, Dr. W. F. Burres, Sidney.

Vice President, Dr. J. C. Dodds, Tolono.

Secretary and Treasurer, Dr. John Laughlin, Rantoul.

Meets monthly at Champaign.

CHICAGO MEDICAL SOCIETY.

President, J. C. Hoag.

First Vice President, H. B. Favill.

Second Vice President, H. T. Patrick.

Treasurer, S. C. Plummer.

Secretary, A. R. Edwards.

CHICAGO PATHOLOGICAL SOCIETY.

President, Dr. Ludvig Hektoen.

Vice President, Dr. Emil Ries.

Treasurer, Dr. F. B. Earle.

Secretary, Dr. George H. Weaver.

CRAWFORD COUNTY MEDICAL SOCIETY.

President, Dr. W. H. Hoskinson, Trimble.

Vice President, Dr. C. H. Voorhees, Hutsonville.

Treasurer, Dr. C. Barlow, Robinson.

Secretary, John Weir, West Union.

Meetings second Thursday in July, September, November, January, March and May.

DE WITT COUNTY MEDICAL SOCIETY.

President, D. W. Edmiston, M. D., Clinton.

Secretary, John A. Tyler, M. D., Clinton.

Censors, J. M. Wilcox, M. D., Clinton; A. L. Morris, M. D., Farmer City; A. E. Campbell, M. D., Clinton.

Quarterly meetings second Tuesday in January, April, July, October.

DISTRICT MEDICAL SOCIETY OF CENTRAL ILLINOIS.

President, Dr. Baxter Haynes, Hurricane.

First Vice President, Dr. M. W. Staples, Grove City.

Second Vice President, Dr. T. J. L. Catherwood, Shelbyville.

Secretary, Dr. J. N. Nelms, Taylorville.

Meets on last Tuesday in April and October.

GALVA DISTRICT MEDICAL SOCIETY.

President, W. A. Grove, Galva.

Vice President, M. T. Ward, Toulon.

Secretary and Treasurer, C. W. Hall, Kewanee.

Board of Census, F. A. Guthrie, Aledo; S. Thompson, Galva; H. N. Heflin, Kewanee.

Meets annually at Galva the first Tuesday of May.

LASALLE COUNTY MEDICAL SOCIETY.

President, William G. Putney, Serena.

Vice President, G. A. Dicus, Streator.

Secretary-Treasurer, E. H. Butterfield.

Meets annually.

MACOUPIN COUNTY MEDICAL SOCIETY.

President, J. S. Collins, Carlinville.
 Vice President, F. C. Barto, Plainview.
 Secretary, J. P. Matthews, Carlinville.
 Meetings semi-annually, third Tuesday in April and October.

MORGAN COUNTY MEDICAL SOCIETY.

President, Dr. L. J. Harvey, Griggsville.
 Vice President, Dr. J. W. Hairgrove, Jacksonville.
 Treasurer, Dr. E. F. Baker, Jacksonville.
 Secretary, Dr. Carl E. Black, Jacksonville.
 Librarian, Dr. H. C. Campbell, Jacksonville.
 Meetings held the second Tuesday of each month in Jacksonville.

NORTH CENTRAL ILLINOIS MEDICAL ASSOCIATION.

President, Dr. James Tweddale, Washburn.
 First Vice President, Dr. L. G. Thompson, Lacon.
 Treasurer and Secretary, Dr. William O. Ensign, Rutland.
 Second Vice President, Dr. F. C. Robinson, Wyanet.
 Assistant Secretary, Dr. G. A. Dicus, Streator.
 Meets first Tuesday in December annually. Next place of meeting, Mendota.

NORTH CHICAGO MEDICAL SOCIETY.

President, Dr. Carl Wagner.
 Vice President, Dr. A. Belcham Keyes.
 Secretary and Treasurer, Dr. John N. Washington.
 Meetings on the first and third Mondays of every month.

OTTAWA CITY MEDICAL SOCIETY.

President, Dr. J. C. Hatheway.
 Vice President, Dr. E. H. Butterfield.
 Secretary, Dr. William A. Pike.
 Meets monthly.

PEORIA CITY MEDICAL SOCIETY.

President, Dr. Wm. T. Sloan, Peoria.
 Secretary, Dr. H. M. Sedgewick, Peoria.

The next meeting of the society will be September next, and after that it will be continued monthly, as usual.

THE CHICAGO ORTHOPEDIC SOCIETY.

Secretary, Dr. F. S. Coolidge.
 The society meets monthly.

SOUTHERN ILLINOIS MEDICAL ASSOCIATION.

President, J. O. DeCourey, M. D., St. Liboy.
 Secretary, C. G. Rayhill, M. D., Belleville.
 Assistant Secretary, J. I. Hale, M. D., Alto Pass.
 Treasurer, H. L. Gault, M. D., Sparta.
 Meetings semi-annually.

THE FOX RIVER VALLEY MEDICAL ASSOCIATION.

President, Dr. C. L. Smith, Aurora.
 Vice President, Dr. J. E. Bumstead, Dundee.
 Secretary-Treasurer, Dr. M. M. Robbins, Aurora.
 Meets in May at Elgin and in November at Aurora.

THE WINNEBAGO COUNTY MEDICAL SOCIETY.

President, Dr. George L. Winn, Rockford.
 Vice President, Dr. T. N. Miller, Rockford.
 Secretary and Treasurer, Dr. J. E. Allaben, Rockford.
 Annual meeting on the second Tuesday of January of each year and other meetings monthly. All meetings held at Rockford.

WARREN COUNTY MEDICAL SOCIETY.

President, Dr. E. J. Blair, Monmouth.
 First Vice President, Dr. E. L. Mitchell, Roseville.
 Second Vice President, Dr. J. W. Standley, Alexis.
 Secretary, Dr. A. G. Patton, Monmouth.
 Treasurer, Miss A. R. Nichol, Monmouth.

At the last meeting held in Monmouth, June 16 ult., the constitution was changed to provide for two meetings a year viz: the first Friday in May and November.



Next Annual Meeting

Will be held in **Springfield** the

Third Tuesday of May

AND TWO SUCCEEDING DAYS (Viz: 22d, 23d and 24th), 1900.

Officers and Committees for the Year 1899-1900.

OFFICERS:

HAROLD N. MOYER, Chicago.....PRESIDENT
 J. T. McANALLY, CarbondaleFIRST VICE PRESIDENT
 WELLER VAN-HOOK, Chicago.....SECOND VICE PRESIDENT
 EDMUND W. WEIS, OttawaPERMANENT SECRETARY
 B. B. GRIFFITH, Springfield.....ASSISTANT SECRETARY
 GEORGE N. KREIDER, Springfield.....TREASURER

SECTION ONE.

PRACTICE OF MEDICINE, MEDICAL
 SPECIALTIES, MATERIA MEDICA AND
 THERAPEUTICS.

H. C. Mitchell.....Chairman
 Carbondale.
 Charles D. Center.....Secretary
 Quincy.

SECTION TWO.

SURGERY, SURGICAL SPECIALTIES,
 AND OBSTETRICS.

Denslow Lewis.....Chairman
 Chicago.
 C. E. Black.....Secretary
 Jacksonville.

SECTION THREE.

ETIOLOGY, STATE MEDICINE AND MED-
 ICAL JURISPRUDENCE.

George F. Butler.....Chairman
 Chicago.
 W. J. Fernald.....Secretary
 Rantoul.

COMMITTEE ON MEDICAL LEGISLATION.

J. W. Pettit, Ottawa, Chairman.
 Joseph Robbins, Quincy.
 W. H. Wilder, Chicago.
 J. A. Egan, Springfield.
 The President, Ex-Officio.

COMMITTEE ON NEUROLOGY AND BIOGRAPHY.

John H. Hollister, Chicago.
 O. B. Will, Peoria.
 E. J. Brown, Decatur.

COMMITTEE ON MEDICAL SOCIETIES.

C. W. Hall, Kewanee.
 J. A. Baughman, Neoga.
 J. O. DeCourcy, East St. Louis.

COMMITTEE ON REGISTRATION. (Ex-Officio.)

George N. Kreider, Springfield.
 B. B. Griffith, Springfield.

EXECUTIVE COMMITTEE. (Ex-Officio.)

H. N. Moyer, Chicago.
 Edmund W. Weis, Ottawa.
 E. P. Bartlett, Springfield.
 H. C. Mitchell, Carbondale.
 Denslow Lewis, Chicago.
 Geo. F. Butler, Chicago.

COMMITTEE ON PUBLICATION.

Edmund W. Weis, Ottawa.
 H. N. Moyer, Chicago.
 George N. Kreider, Springfield.

COMMITTEE ON ARRANGEMENTS. Springfield.

E. P. Bartlett, Chairman, Sp'g'f'd.
 J. N. Dixon, Springfield.
 L. C. Taylor, Springfield.
 C. M. Bowcock, Springfield.
 B. B. Griffith, Springfield.

COMMITTEE ON SOCIETY HISTORY.

N. S. Davis, Chicago.
 Robert Boal, Lacon.
 DeLaskie Miller, Chicago.
 E. Ingals, Chicago.
 J. H. Hollister, Chicago.
 Edmund Andrews, Chicago
 T. D. Fitch, Chicago.
 L. G. Thompson, Lacon.

JUDICIAL COUNCIL.

C. C. Hunt, Dixon.
 Hugh T. Patrick, Chicago.
 C. DuHadway, Jerseyville.
 J. F. Percy, Galesburg.
 James L. Reat, Tuscola.
 C. E. Black, Jacksonville.
 E. P. Cook, Mendota.
 D. W. Graham, Chicago.
 O. B. Will, Peoria.

ILLINOIS Medical Journal

The Official Organ
of the
State Medical Society



A Monthly Bulletin
Edited by the
Publication Committee

Printed by
THE ILLINOIS STATE JOURNAL COMPANY.

Entered in the Springfield Postoffice as Second-Class Matter.

Volume XLIX. }
Number 2. }

Springfield, Ill., August, 1899.

{ Subscription, \$3 a Year.
{ Single Copies, 25 Cents.

TABLE OF CONTENTS.

ADDRESS.

- Therapeutics: Past, Present and Future—
George F. Butler, M. D., Chicago..... 51

ORIGINAL ARTICLES.

- Psycho-Physical Culture—W. Xavier Sud-
duth, A. M., M. D., Chicago..... 60
- Etiology of Eclampsia—Chas. B. Reed, M.
D., Chicago..... 71
- The Treatment of Eclampsia—Joseph B.
DeLee, M. D., Chicago..... 74
- Complete Prolapsus of an Ovarian Tumor
Through the Anus. Operation. Recovery.
—J. A. Baughman, M. D., Neoga..... 80

EDITORIALS.

- The Arrangement of the Program..... 82
- Jubilee Meeting..... 83
- Professional Progress..... 83

OFFICIAL TRANSACTIONS.

- Proceedings of Cairo Meeting—Second Day. 84
- Proceedings of State Board of Health..... 81
- Report of Publication Committee..... 84
- Report of Committee on Medical Societies.. 84
- Report of Treasurer..... 86
- Report of Committee on Medical Legislation 87

CORRESPONDENCE.

- Activity of the Quacks..... 88
- Magnetic Healers..... 89
- State Items..... 90
- Chicago News Items..... 91

REPORTS OF COUNTY AND DISTRICT SOCIETIES.

- Report of June Meeting of Morgan County
Society..... 92
- Report of April Meeting of Brainerd Dis-
trict Society..... 93
- Medical Societies of Illinois..... 93
- Officers of State Society..... 96

LIST OF OFFICERS AND PLACES OF MEETING SINCE THE ORGANIZATION OF THE SOCIETY.

YEAR.	PRESIDENT.	VICE-PRESIDENT.	SECRETARY.	TREASURER.	PLACE OF MEETING.
1850*	Rudolphus Rouse.....		Edwin G. Meek.....		Springfield.
1850	William B. Herrick.....	Rudolphus Rouse.....	Edwin G. Meek.....	John A. Halderman.....	Springfield.
1851	Samuel Thompson.....	E. McArthur.....	H. Schoemaker.....	E. Rouse.....	Peoria.
1852	Rudolphus Rouse.....	Thomas Hall.....	E. S. Cooper.....	Edward Dickenson.....	Jacksonville.
1853	Daniel Brainard.....	C. N. Andrews.....	H. A. Johnson.....	A. B. Chambers.....	Chicago.
1854	C. N. Andrews.....	Samuel Thompson.....	H. A. Johnson.....	N. S. Davis.....	La Salle.
1855	N. S. Davis.....	E. R. Roe.....	E. Andrews.....	J. V. Z. Blaney.....	Bloomington.
1856	H. Noble.....	T. D. Washburn.....	N. S. Davis.....	J. V. Z. Blaney.....	Vandalia.
1857	C. Goodbreak.....	A. D. McArthur.....	H. A. Johnson.....	J. V. Z. Blaney.....	Chicago.
1858	H. A. Johnson.....	William Lyman.....	N. S. Davis.....	J. W. Freer.....	Rockford.
1859	David Prince.....	H. W. Davis.....	N. S. Davis.....	J. W. Freer.....	Decatur.
1860	Wm. M. Chambers.....	T. K. Edmiston.....	N. S. Davis.....	J. W. Freer.....	Paris.
1863	A. McFarland.....	A. H. Luce.....	N. S. Davis.....	J. H. Hollister.....	Jacksonville.
1864	A. H. Luce.....	J. M. Steele.....	N. S. Davis.....	J. H. Hollister.....	Chicago.
1865	J. M. Steele.....	F. B. Haller.....	N. S. Davis.....	J. H. Hollister.....	Bloomington.
1866	F. B. Haller.....	L. T. Hewens.....	N. S. Davis.....	J. H. Hollister.....	Decatur.
1867	S. W. Noble.....	D. W. Young.....	N. S. Davis.....	J. H. Hollister.....	Springfield.
1868	S. T. Trowbridge.....	J. O. Hamilton.....	N. S. Davis.....	J. H. Hollister.....	Quincy.
1869	S. T. Trowbridge.....	J. O. Hamilton.....	N. S. Davis.....	J. H. Hollister.....	Chicago.
1870	J. V. Z. Blaney.....	G. W. Albin.....	T. D. Fitch.....	J. H. Hollister.....	Dixon.
1871	G. W. Albin.....	John Murphy.....	T. D. Fitch.....	J. H. Hollister.....	Peoria.
1872	O. O. Hamilton.....	T. Worrell.....	T. D. Fitch.....	J. H. Hollister.....	Rock Island.
1873	D. W. Young.....	T. D. Washburn.....	T. D. Fitch.....	J. H. Hollister.....	Bloomington.
1874	T. F. Worrell.....	E. L. Holmes.....	T. D. Fitch.....	J. H. Hollister.....	Chicago.
1875	J. H. Hollister.....	Wm. P. Pierce.....	T. D. Fitch.....	Wm. E. Quine.....	Jacksonville.
1876	T. D. Washburn.....	J. L. White.....	T. D. Fitch.....	J. H. Hollister.....	Urbana.
1877	T. D. Fitch.....	S. H. Birney.....	N. S. Davis.....	J. H. Hollister.....	Chicago.
1878	J. L. White.....	E. P. Cook.....	N. S. Davis.....	J. H. Hollister.....	Springfield.
1879	E. P. Cook.....	J. S. Whitmire.....	N. S. Davis.....	J. H. Hollister.....	Lincoln.
1880	Ephriam Ingals.....	G. W. Jones.....	N. S. Davis.....	J. H. Hollister.....	Belleville.
1881	G. W. Jones.....	William Hill.....	S. J. Jones.....	J. H. Hollister.....	Chicago.
1882	Robert Boal.....	A. T. Darrah.....	S. J. Jones.....	J. H. Hollister.....	Quincy.
1883	A. T. Darrah.....	L. G. Thompson.....	S. J. Jones.....	J. H. Hollister.....	Peoria.
1884	E. Andrews.....	D. S. Booth.....	S. J. Jones.....	Walter Hay.....	Chicago.
1885	D. S. Booth.....	S. C. Plummer.....	S. J. Jones.....	Walter Hay.....	Springfield.
1886	William A. Byrd.....	W. T. Kirk.....	S. J. Jones.....	Walter Hay.....	Bloomington.
1887	William T. Kirk.....	Elias Wengen.....	D. W. Graham.....	Walter Hay.....	Chicago.
1888	William O. Ensign.....	C. W. Earle.....	D. W. Graham.....	Walter Hay.....	Rock Island.
1889	C. W. Earle.....	P. H. Oyler.....	D. W. Graham.....	T. W. McIlvane.....	Jacksonville.
1890	John Wright.....	L. P. Mathews.....	D. W. Graham.....	T. W. McIlvane.....	Chicago.
1891	John P. Mathews.....	Charles C. Hunt.....	D. W. Graham.....	George N. Kreider.....	Springfield.
1892	Charles C. Hunt.....	E. F. Ingals.....	D. W. Graham.....	George N. Kreider.....	Vandalia.
1893	E. Fletcher Ingals.....	Otho B. Will.....	D. W. Graham.....	George N. Kreider.....	Chicago.
1894	Otho B. Will.....	D. R. Brower.....	J. B. Hamilton.....	George N. Kreider.....	Decatur.
1895	Daniel R. Brower.....	A. C. Corr.....	J. B. Hamilton.....	George N. Kreider.....	Springfield.
1896	D. W. Graham.....	J. M. G. Carter.....	J. B. Hamilton.....	George N. Kreider.....	Ottawa.
1897	A. C. Corr.....	J. M. G. Carter.....	J. B. Hamilton.....	George N. Kreider.....	East St. Louis.
1898	J. M. G. Carter.....	T. J. Pitner.....	E. W. Weis.....	George N. Kreider.....	Galesburg.
1899	T. J. Pitner.....	H. N. Moyer.....	E. W. Weis.....	George N. Kreider.....	Cairo.

*Preliminary Convention.

EXPLANATION.—No meeting was held in the years 1861 or 1862, "on account of the large number of members engaged as surgeons in the volunteer army of the United States."

Until the meeting of 1869, it was the custom to elect officers the first day, and for the President to have charge of the meeting at which he was elected. Hence Dr. Trowbridge seems to have presided over two meetings, although elected President but once.

The Illinois Medical Journal.

The Official Organ of The Illinois State Medical Society.

VOL. XLIX. }
NO. 2. }

Springfield, Ill., August, 1899.

{ SUBSCRIPTION
{ \$3.00 A YEAR.

THERAPEUTICS: PAST, PRESENT AND FUTURE.

BY GEORGE F. BUTLER, M. D., CHICAGO.

[Address of Section I.]

The History of Medicine during the early epoch which marked the awakening of scientific thought is enveloped in baffling obscurity, myth and tradition of necessity supplying the place of more intelligent investigation. Notwithstanding perplexities, however, it is of profound interest to the modern student to trace the far distant sources of therapeutic knowledge, examine attentively the gradual development of the healing art, and in the brilliant achievements of the nineteenth century, recognize only the flower and fruitage sprung from seeds of progress implanted in the human mind in remote ages—yes, even in the dawn of civilization. Moreover, the retrospective study of medical science can but enhance our veneration for the struggling intellect of man, and enable us to form a more adequate conception of the patience and labor which have marked the evolution of the physician's attainment.

Such considerations occur to one who looks deeply into the annals of the past, striving to discern, so far as existing records permit, the earlier status of Therapeutics.

It has been philosophically remarked that "The progress during the present century, familiar to all, has been marked by the employment of inductive methods of reasoning in the departments of physiology, pathology and clinical medicine. By the results of such methods and the development of a scientific habit of thought, the science of medicine, which is that of physiology in its broadest sense, the physiology of health as well as the physiology of disease, including the effects of drugs, can well fill its minor place in the science of bi-

ology. The old cry of the uncertainty of medicine, the unscientific character of the art of medicine, cannot be held up to us. No Montaigne can at this day hurl the shafts of ridicule and satire that stung to the quick and stimulated honest doubt in the sixteenth century. Well do we know, ourselves, our limitations as well as our power, and with becoming modesty do we uphold the claims of medicine as a science. If science is "knowledge gained by systematic observation, experiment and reasoning; knowledge, co-ordinated, arranged and systematized," well fortified is he with cynicism who has the hardihood to maintain the contrary."

The many achievements which have established the present advanced status of medicine are too familiar to require detailed rehearsal. The study of pathology has attracted new and world-wide attention, accompanied by wholly unprecedented results and a skill in scientific investigation of incomparable value to mankind. A greater knowledge of etiology, a larger comprehension of the systematic rationalism of the times, and a more rigid adherence to the scientific truths revealed by practical observation, have served to place the medicinal art upon a loftier plane of human understanding. Our century opened with a sound preference for inductive research over the less valid generalizations of the past. Virchow, Cohnheim, Koch, Lister, Pasteur, Bernheim, Kitasato and hosts of other ardent investigators have deftly explored the arcana of chemical, physiologic and biologic research. Specialists of remarkable acumen have revealed to an astonished world secrets of nature which may be, and indeed are now, of vast importance to the welfare of mankind. Foremost among the new and startling discoveries must be regarded the mysterious yet indubitable effects produced by antitoxins,

and their influence upon certain infectious diseases. A consideration of the matter is therefore pertinent.

Great progress has been made during the past year in the field of serum-therapy, though much remains open to question, and many things cannot yet be explained. The field for the investigator is perhaps larger than ever before. For a better understanding of the antitoxins and their therapeutic application, a few essential facts should be borne in mind. An antitoxin is not the direct result of bacterial action, but is properly described as an unknown body resulting from the resistance of healthy organism to the toxins of pathogenic bacteria. In practice this antitoxic body comes to us in the blood serum of animals, usually the horse. When properly prepared and properly kept in aseptic containers, the antitoxins are not at all dangerous; in fact, are as innocuous as an equal amount of blood serum or normal salt solution, administered in the same way. We use antitoxins to resist the effects of infection with pathogenic bacteria because the results of such infection are due to the toxins elaborated by those bacteria, and not to the bacteria themselves. The antitoxins do not destroy the bacteria, in other words, are not germicides. In fact, the antitoxic serums are themselves good culture media. One theory of their action is that they neutralize the toxin, thus giving the natural bacterial powers of the body an opportunity to exercise their function.

The following brief description of the process employed in the laboratory of Parke, Davis and Company will, I trust, show that I am justified in the above definition of an antitoxin.

Young horses in perfect condition are selected and kept under careful observation by an expert veterinarian for three or four weeks. Temperature is taken three times a day for two weeks, and during this time they are carefully tested with Mallein for glanders. When a horse is found to be perfectly healthy, he is taken into the stables with the other antitoxin horses, and there

receives his first dose of diphtheria poison, or more properly a solution of the toxin of the Klebs-Löffler bacillus. This is obtained in the following manner: A culture is obtained from the throat of a patient suffering from a virulent attack of diphtheria. The Klebs-Löffler is isolated from this culture and planted in a flask of bouillon, which is kept in an incubator for ten days. At the end of this time it has attained its maximum toxicity, and the bacteria begin to die of their own poison. The toxin which they have elaborated in the course of their existence is held in solution by the beef tea, Trikresol added. This bouillon solution of toxin is then filtered through porcelain to remove the bacterial cells and any other extraneous matter. It is then ready for injection into the horse. About one-tenth of one c. c. is injected subcutaneously. The horse responds with all the constitutional symptoms of diphtheria such as a chill, fever, loss of appetite, more or less pharyngeal paralysis with regurgitation of food, and occasionally death of heart paralysis. Upon recovery, which comes within a few days, he is given a slightly larger dose. This treatment is continued for about one year, when he will take from 2,000 to 3,000 times the initial dose without reaction. He is then ready for bleeding. About 6,000 c. c. of blood is drawn from the external jugular vein. This is allowed to clot, and the serum obtained is what is known commercially as antitoxin. Cultures are made from this for the detection of any possible contamination. If there is no contamination present, it is siphoned off into the glass bulbs, in which it appears in the market, first having 0.4 per cent. Trikresol added. After standing a few days to allow the development of bacteria, should any be present, cultures are again carefully made, and if these show presence of bacteria in the serum, the whole lot is destroyed. If it is free from contamination, it is ready for the market.

In making the streptococcus antitoxin a culture is made of bacteria obtained from two sources—erysipelas and puerperal sep-

ticemia. This is done because Marmorek, Paltauf and some other eminent bacteriologists believe that streptococci of various infections belong to different families—that the streptococcus of erysipelas is not identical with the streptococcus of puerperal fever. It is but fair to say that others equally eminent do not hold this view. To cover this point, the cultures obtained from the two sources are used. Its virulence is increased by passing it through rabbits. After passing through about fifty rabbits, a culture is planted in beef tea, and the same course pursued as for diphtheria antitoxin. Anti-tubercle serum is obtained by immunizing horses with the original Koch's tuberculin.

In support of the proposition that the symptoms in infectious diseases are due to the toxins elaborated by the bacteria and not to the bacteria themselves, the following quotation from the last edition of Sternberg's Manual of Bacteriology is given: "Certain saprophytic bacteria, when injected beneath the skin of a susceptible animal, multiply at the point of inoculation and invade the surrounding tissues, giving rise in some instances to the formation of a local abscess, in others to an infiltration of the tissues with bloody serum, and in others to extensive necrotic changes. These local changes are due not simply to the mechanical presence of the micro-organisms which induce them, but to chemical products evolved during the growth of these pathogenic bacteria. Indeed, their pathogenic power evidently depends, in some instances at least, upon these toxic products of their growth, by which the vital resisting power of the tissues is overcome. Other bacteria, while they develop chiefly in the vicinity of the point of entrance—by accident or by inoculation—produce a potent toxic substance which gives rise to the general symptoms of a serious character, such as tetanic convulsions (bacillus of tetanus), or intense fever and nervous phenomena (micrococcus of erysipelas). The pus cocci and various other saprophytic bacteria, when introduced beneath the

skin, give rise to the inflammation of abscesses, unattended by any very considerable general disturbance; and also to secondary purulent accumulations—metastatic abscesses.

"That this is not due simply to their mechanical presence is shown by the fact that powdered glass and other inert substances, when thoroughly sterilized, do not give rise to pus formation when introduced beneath the skin or when injected into the cavity of the abdomen. On the other hand, it has been demonstrated by the experiments of Grawitz, De Bary and others, that certain chemical substances which act as local irritants when brought in contact with the tissues may induce pus formation quite independently of micro-organisms; nitrate of silver, oil of turpentine, and strong liquor ammoniæ have been shown to possess this power. And it has been demonstrated by the recent experiments of Büchner that sterilized cultures of a long list of different bacteria—17 species tested—give rise to suppuration when introduced into the subcutaneous tissues.

"In diphtheritic inflammation of mucous membranes we have a local invasion of the tissues and a characteristic plastic exudation. In true diphtheria the local inflammation and necrotic changes in the invaded tissues are not sufficient to account for the serious general symptoms, and we now have experimental evidence that the diphtheria bacillus produces a very potent substance to which these symptoms are no doubt largely due. The diphtheria bacillus of Lœffler appears to be the cause of the fatal malady which goes by this name, but undoubtedly other micro-organisms may be concerned in the formation of diphtheritic false membrane."

In addition to this valuable information afforded us by Dr. Sternberg, additional evidence as to the correctness of this conclusion is the fact that horses, while being immunized, give the classical constitutional symptoms of each disease though they are treated with the filtered toxin which contains no bacteria whatever. A possible ex-

ception may be made of anthrax, though Sternberg distinctly states that it acts in the same way.

As to the therapeutic action of antitoxin, little or nothing is known positively. It seems reasonable to conclude from experimental evidence that the antitoxin neutralizes the toxin in the body, and thereby gives the natural germicidal powers an opportunity to dispose of the bacteria. It may be that it has the additional property of stimulating the phagocytic and possibly other bactericidal functions. The following experiments made by Messrs. Martin and Cherry in England, and described in an editorial in the *Journal of the American Medical Association*, of August 27th, 1898, will be of interest in this connection. Behring, Ehrlich and Kanthack have advocated the theory that the antagonism between toxins and antitoxins is a chemic one, somewhat analogous to the neutralization of an acid by an alkali, while Büchner, Metchnikoff and others have maintained that it is indirect and operates through the cells of the organism. Martin and Cherry used a snake venom antitoxin. A considerable number of guinea pigs were used. At 68° C. the antitoxin was destroyed, while the venom retained its virulence. In the control experiment with the venom only, all the animals died within a few hours. A number of mixtures were made of 1 c. c. of antitoxin with twice the fatal dose of venom; others with three and four times the fatal dose. These mixtures were allowed to stand at the usual laboratory temperature (20° to 23° C.) for 2, 5, 10, 15 and 30 minutes respectively, and then heated to 68° C., and then injected.

As above remarked, this heat destroyed the antitoxin so that none was injected. The animals subjected to the mixture of the stronger doses of 10 minutes or less died, or were seriously affected; all of those receiving the 15 minute mixtures survived, while the 30 minute mixtures produced no symptoms whatever. Similar results were obtained with diphtheria antitoxin and toxin. These experiments seem to show

as far as anything can that the neutralization of toxins may occur in the test tube, and that the vital processes in the organism and the body cells are not essential. These gentlemen made further experiments by passing a mixture of toxin and antitoxin through a film of gelatin on a Pasteur-Chamberlain filter. This was porous for toxin, but not for antitoxin, owing to the difference in the size of their molecules. The toxin which passed through the filter, after having been mixed with antitoxin, was neutral. The unavoidable conclusion from this experiment is that the toxin was neutralized before filtration.

Further experiments were made to prove their theory that toxins are albumoses and antitoxins globulins, but their experiments do not appear to be conclusive.

The supposition that the administration of antitoxin is followed by a stimulation of the germicidal powers of the body seems to be reasonable, at least in the case of the anti-streptococcic serum, since the streptococci disappear with the passing away of the signs and symptoms. On the other hand, the Klebs-Löffler bacillus is found in the throat for weeks and even months after the disappearance of all symptoms of diphtheria in cases treated with the antitoxin.

The present status of diphtheria antitoxin may be presented in a few words. It has established itself as a specific in the treatment of this disease. During the past year the use of larger doses has become more general, and it seems certain that better results are obtained. The administrators of the Chicago Department of Health give 2,000 units in all cases of suspected diphtheria, and employ 1,000 units as an immunizing dose. During the months of November and December, this department treated 219 cases of bacteriologically proven diphtheria, all charity cases, with a death rate of 4.1 per cent. Some two and a half years ago when antitoxin was not used the death rate from diphtheria treated by this department was about 35 per cent.

A considerable number of reports have

been published showing good results in the use of diphtheria antitoxin in other diseases, as asthma, acute bronchitis, etc. Its favorable action in these conditions cannot be satisfactorily explained. Dr. McClintock says that possibly the natural immunity of the horse against these diseases will account for the favorable action of his blood serum in these diseases. In other words, Dr. McClintock thinks its therapeutic action in these conditions is due to the blood serum, and not to the diphtheria antitoxic body present in the serum.

Antistreptococcic serum gives promise of being second only to the diphtheria antitoxin in point of therapeutic value. It has been most successful in erysipelas and puerperal septicemia. Cases of scarlet fever are reported where it has been useful in shortening the duration of the disease, and in preventing unfortunate complications and sequelæ, such as otitis media and other suppurative processes due to streptococci.

A valuable contribution to the literature on this antitoxin was made by Dr. W. L. Baum, of Chicago, and published in the January number of *Medicine*. A perusal of this essay will repay anyone interested in the antitoxin treatment of disease. Dr. Baum reports 22 cases coming under his observation in which the serum was used. "Of these, 19 were cases of erysipelas; one of erysipelas plus tubercular nuchal glands, and of erysipelas with puerperal septicemia and double labial abscess. The last was the only fatal case. In 4 of the cases of erysipelas only one injection of the serum (10 c. c.) was used, with a reduction of temperature to the normal within twenty-four hours; no relapse. In 6 others four injections of 10 c. c. each were given upon consecutive days, with a rapid recovery on the fifth day; no relapse. In 3 the injections were followed by a reduction in temperature within twenty-four hours, but relapsed at intervals of from three to six days. In all of these cases the serum was again used. In one, repeated injections seemed to exercise no effect upon the temperature, and the treatment was followed by spong-

ing, which seemed more effective. The others were old cases in which there had been a marked tendency to relapse; in these not only was the temperature reduced, but the cases showed rapid improvement and recovery.

"During this time many other cases of erysipelas were under treatment at the hospital, but an effort was made to select those cases which were characterized by high temperature or complications."

Dr. Baum also speaks of Baginsky's report of results in 48 cases of scarlatina; in which antistreptococcic serum was employed. In 27 the course of the disease was unusually favorable, the majority recovering without complications. A striking feature in all was the rapid reduction of temperature. In exceptional cases albumin appeared and a single case had nephritis with tube casts and blood corpuscles. In a second group of cases of a severe type the results were not so favorable, although it is possible that in these the amount of serum employed was insufficient. Among the whole number of cases there were seven deaths, or 14.6 per cent., which compares favorably with the percentages (between 22.6 and 24.4) in the years from 1890 to 1895. The mortality among cases treated by other means during the same epidemic as that in which the serum was employed was 24.9 per cent. The untoward effects of the injections were similar to those observed after injections of diphtheria antitoxin. The future for this serum in the treatment of chronic phthisis is bright with hope. We are told that in the majority of cases simple uncomplicated tuberculosis of the lungs is not a dangerous disease—that it is the added infections, such as streptococcic, staphylococcic, the yeast fungus and others that kill. Dr. Robert Reyburn, of Washington, D. C., makes the statement that the vast majority of persons over sixty years of age who die from any cause have had tubercular deposits in their lungs. The fact that post-mortem examinations in public hospitals and other public institutions show tubercular lesions in the ma-

jority of subjects, would indicate that tuberculosis in the lungs is usually a self-limited disease. Of these complications the most frequent, and probably the most important, are the streptococci. In a few cases where the antistreptococcic serum has been used the reports have been almost uniformly favorable. However, its value is not by any means demonstrated.

It is to be regretted that tetanus antitoxin does not in clinical use do all that it will do in the laboratory. It has been used in a considerable number of cases, but in nearly every instance without any result that would justify us regarding it as a great curative agent. However, it should be used early in every case of tetanus, and in large doses, because it is, like the other serums, harmless, and the patient has a somewhat better chance for recovery. Not until our means of diagnosis have been improved by bacteriological methods or otherwise can we expect great results from the tetanus antitoxin. The following explanation for inefficacy of this antitoxin has at least the merit of originality on the part of its author, and some plausibility: "The toxin of the bacillus tetanus has a chemical affinity for nerve tissue, and enters into chemical combination with and destroys such tissue, and it is this chemical combination and destruction in the nerve centers which produces the tetanic convulsions. The antitoxin has no such chemical affinity and neutralizes only that toxin remaining in the blood current, and of course it can not repair the nerve tissue lesion. When we are able to diagnose tetanus early, the antitoxin will be used successfully. One or two cases have been successfully treated with intra-cerebral injections of antitoxin, the theory being that the antitoxin should be placed where it could neutralize the toxin which is producing the convulsions by means of its action on the nerve centers. The value of this method of administration has not been proven fully, as many cases have been treated unsuccessfully."

As a preventive measure, the tetanus antitoxin is all that can be desired. Dr.

Joseph Hughes, one of the most eminent and conservative veterinary surgeons in Chicago, says that he has used the tetanus antitoxin as a prophylactic in over 500 cases following wounds both surgical and accidental. Not one has developed the disease, though he has used it where he was justified by former experience in expecting tetanus to show itself. Dr. Hughes used 10 c. c. as a protective dose, and injects it five to seven days after the suspected inoculation.

The time has come when it is the duty of every railroad company to authorize the use of this serum as a prophylactic by its surgeons. It should be used by every surgeon treating wounds liable to be infected with the bacillus tetanus. It costs a very small amount of money to protect a man absolutely against this terrible condition.

The anti-tubercle serum has not proven itself of more value than a great number of other remedies vaunted as a specific in this disease. Maragliano, of Italy, continues to send encouraging reports, and has recently erected a tuberculosis hospital in or near Rome where his antitoxin is to be used. It must be confessed, though regretfully, that this serum has not been a marked success in this country.

The bacteriologists of the Chicago Department of Health are at present studying the bacillus of influenza, which they have succeeded in isolating. Though it is a long journey from the discovery of a bacterium to the successful production of an antitoxin to the effects of that germ, still it is a matter of interest to know that the exact cause of the dread epidemic is at last known.

These scientists are now in the midst of a thorough investigation of the bacteriology of scarlet fever.

When using antitoxin, the necessity of obtaining serum of a reliable manufacturer cannot be too strongly urged. Everything depends upon the laboratory. For instance, we cannot tell from the appearance of a package of serum whether it contains 100 units or 1,000 units, or none. We cannot tell whether it comes from a healthy animal, or whether it was contaminated with

bacteria when bottled, or whether it has become contaminated after leaving the laboratory. Only that put up in hermetically sealed bulbs is absolutely free from the possibility of contamination.

Foreign serums have shown themselves to be inferior to the American in some respects. This is due, first, to the fact that the foreign antitoxin has been shipped a long distance; secondly, the technique of production is not so perfect, and, thirdly, the European manufacturer regards the market in the United States in a light of an orange to be sucked as dry of profit as possible in the shortest time. In the March number of *Pediatrics* is a report which says that the serum on the London market in 1897 was a worthless article; that one German house supplied in London an antitoxin which was warranted to contain 100 units, but which in experiment gave only 17.5, while another sold as containing 200 units gave only 30 units. Only a short time ago there was current an able-bodied rumor to the effect that German manufacturers were sending to this country diphtheria antitoxin which had been rejected by their own government. The vast majority of unfavorable reports on the use of the antistreptococcic serum has come from European physicians or from physicians of this country who have used the foreign serum. The European manufacturer does not take so long a time to immunize his horses, and does not usually possess so virulent a toxin for immunizing purposes. Then, too, the foreign serum is necessarily subjected to many and great changes of temperature incident to long transportation, while wending its devious way from the European laboratory to the American physician. While the American laboratories are willing to exchange old serum for fresh, the foreigner, of course, cannot do this, and after serum has become too old, it is a dead loss to the physician or druggist, or is injected into the patient sometimes with unfortunate consequences.

The action of Professor Emil Behring in obtaining a patent on diphtheria antitoxin,

and his present efforts to obtain a patent on tubercle antitoxin, have justly met with the decided disapproval and condemnation of every American physician who has any belief in the ethics of the profession. Various medical societies, including the Mississippi Valley Medical Association, the Chicago Medical Society, and many others, have passed resolutions expressing their indignation, and promising their active support to the American manufacturers who are engaged in litigation with the owners of the patent. Perhaps no subject has been taken up so promptly by the medical press. Every one of the better periodicals has had at least one editorial scoring Professor Behring in the severest terms.

Permit me to add to the foregoing detailed treatment of serum-therapy a few considerations touching another instance of progressive medicine—our improved knowledge of the laws governing the science of pharmacology.

A great step in the advancement of the science of pharmacy is the accurate estimation of the activity of various drugs by testing them upon living animals. This is known as the physiological assay. For some years the better class of manufacturing pharmacists have made a chemical assay of the various drugs amenable to such an examination. It has long been known, however, that the activity or strength of many drugs, such as cannabis indica, ergot, strophanthus and digitalis, cannot be determined by the chemist. For instance, ergotin does not represent the therapeutic value of ergot, nor does cannabin represent that of cannabis indica, nor digitalin that of digitalis. Unfortunately, the drugs of this class are the very ones which vary most widely in their activity, and are also the ones which the physician gives most carefully, and from which he wishes to obtain the most definite results. By the physiological assay the manufacturer tests each lot of drugs on a number of animals, and does not allow the product to leave his laboratory until he has obtained definite results. The conclusion is inevitable that

the physician will obtain his results much more surely with preparations so standardized than he will with those which have not been assayed. A brief description of the method of these physiological tests as given by Dr. E. M. Houghton is interesting.

From times prehistoric it has been observed that in fowls, swine and other animals as well as man, fed with ergotized rye or with bread prepared from the flour of such grain for a considerable length of time, the poisonous action of the fungus is frequently manifested by gangrene and sloughing of the peripheral parts, as the comb of fowls, ears of hogs, and ears, nose, fingers and toes of man. Two particular types of ergot poisoning have been observed, namely, *ergotismus gangrenosus* and *ergotismus spasmodicus*. Kobart and his pupil Grunfeld were the first to employ the feeding of ergot to roosters in order to determine the activity of the crude drug or of the products isolated from it. However, these investigators employed the action only for experimental purposes.

In making the preparations of ergot, the carefully selected crude drug is tested by being fed to roosters, a certain number of grains to a certain weight of animal. If it is of normal activity, it produces the local effect in the comb and wattles. This drug is then carefully exhausted with the proper menstruum, and the finished product is again tested in the same way. About one-third of the ergot thus tested is found to be inert. If the finished product proves itself below the standard, more of the drug is exhausted with the same menstruum.

The therapeutic importance of the heart tonics, digitalis, *strophanthus*, and others of the group, is now recognized, and these drugs are universally employed by physicians in their daily practice. We are not generally accustomed to think of the heart tonics as being the most poisonous remedies employed in therapeutics, yet it is true. According to some of the best authorities, the maximum dose of extract of digitalis is about one-half as great as the maximum dose of extract of belladonna; while stroph-

anthin, the active principle of *strophanthus*, is three times as poisonous as atropine, ten times as poisonous as strychnin, and twelve times as poisonous as absolute hydrocyanic acid. It would be considered dangerous pharmaceutic practice to allow preparations containing atropine, strychnine or hydrocyanic acid to be sold, without first being subjected to careful chemic assay and standardization. The United States Pharmacopœia gives elaborate methods for the exact quantitative determination of these constituents; while owing to the fact that the obtained active principles of the heart tonics are glucocides so easily decomposed by chemic manipulation that an assay can not be made, no directions whatever are given for the determination of the physiologically active properties of the galenical preparations of these drugs, and the tests for the purity of the respective glucocides are of little value.

I shall speak of the physiologic assay of *strophanthus*, its active constituent, *strophanthin*, and its pharmaceutic preparations. These will serve as types. About thirty varieties of *strophanthus* have been discovered. It is claimed that only six varieties contain *strophanthin*, while a few contain a still more active glucocide, ouabain. As found in the American markets, the drug generally consists of a varying mixture of the seeds of *strophanthus kombe* and *strophanthus hispidus*. Preference is generally given to *strophanthus kombe* since it contains about 0.95 per cent. *strophanthus*, while *strophanthus hispidus* contains about one-third less. The amount of contained *strophanthin* is partly dependent upon climatic conditions. It is a well known fact that the physiological activity of digitalis leaves varies within wide limits from year to year. Holmes, of London, who has given this matter much attention, claims that only by purchasing the seeds in the follicle and testing a seed from each follicle can a reliable preparation of *strophanthus* be made. An assay based on the amount of extractive contained in a given tincture is of little value to the physician since the extractives

consist largely of chlorophyll and other inert substances.

In making a qualitative assay a solution of the crude drug or its active constituent is applied to the laidbare frog's heart, and the slowed rhythm, the less and less perfect diastole, the increased systole and, finally, complete inhibition in systole are noted. Intravenous injections of such solutions into dogs and rabbits are made with careful observation of the variations in blood-pressure and heart-beats, as shown by graphic tracings reported on the kymograph.

A quantitative estimation by pharmacologic methods is a much more difficult problem. Many series of experiments were necessary in order to decide what method is best for this work. Finally, the most practical method was found to be the determination of the minimum fatal dose on lower animals. Accordingly, rabbits, guinea pigs, rats, frogs, etc., were employed, the frogs being finally chosen as the best adapted for the purpose. Different species of frogs vary considerably in reaction to the poisons, but the same species behave much alike. The method of administering the poisons and observing results may be briefly stated as follows: The strophanthin or tincture of strophanthus is dissolved in normal salt solution in such strength that the total quantity to be injected shall not exceed 5 c. c. The fluid is injected through the frog's mouth into the abdominal lymph sac. Great care is taken not to puncture the skin, as this will allow a portion of the injected fluid to leak out. After injection, the frogs are placed in wide frog glasses, the plates containing about a quarter of an inch of water. Several series of five frogs each are injected for each sample of the drug to be assayed, the first series to be injected with a drug of known standard strength. The second series is injected with doses varying considerably in size. The third series is injected after the approximate dose of poison has been found from the second series. From the third series the minimum dose is

almost surely fixed. A fourth series is finally injected, which fixes the limit of strength very closely. The minimum fatal dose should kill at least three frogs out of five. If a less number die, other series are injected with slightly increased doses.

A series of fourteen experiments made with tinctures prepared from different lots of the seed as found on the market showed the fatal dose of the strongest to be .00010 c. c. per gram of body weight, and the weakest to be 0.33 c. c. per gram of body weight. Samples of strophanthin were obtained from three of the best manufacturing chemists in the world. These were supposed to be pure strophanthin, yet one was ninety times as strong as another, the others varying between these limits. The digitalin varies greatly in strength, but much less than strophanthin. Both strophanthin and digitalin are given daily in tablet or pill form, the amount of active ingredient being apportioned by weight. A splendid opportunity for the sudden termination of a favorably progressing heart case should the patient happen to have the prescription refilled from a fresh bottle. The only way that such remedies can be taken with any degree of safety is to have them prepared from stock of known physiological strength.

The drugs assayed by the physiological method are: Ergot, cannabis indica, digitalis leaves, strophanthus seeds, convallaria majalis, elaterium and cocaine. It is worthy of note that, of the crude drug cannabis indica, about 50 per cent. is found to be inert.

We have traversed—albeit cursily when we consider the magnitude of the theme—the vast field embraced in the History of Medicine. In closing the subject, a retrospective glance will show the magnificent achievement of the present day compared with the crude knowledge of former centuries. The acquisition of knowledge, however, is like the ascent of a mountain—the higher the point attained, the wider the horizon and the less definite our perception of details. We have, it is

true, reached a clearer, purer atmosphere; yet, as the law of compensation presses upon us, we must constantly devise new methods of scientific conquest. As the telescope has overcome space, let us hope that no minutiae of medical knowledge will forever resist the genius of patient investigation in the domain of therapeutics.

"Medicine has for its object the relief of suffering and the prolongation of life. There exist many limitations to the successful accomplishment of this object. The limitations of medicine are less numerous to-day than in the past, and many of the obstacles to success in the prevention of diseases and the healing of the sick will be removed in the future.

"Medicine, as a whole, is not a science. Of some branches which enter into it our knowledge is exact; of others our information is theoretic, while every day adds to our knowledge and removes many obstacles from the path of progress. The chemical laboratory and the microscope have done much and will do more to make medicine a science. Progress in knowledge of chemistry and biology has been wonderful in the last twenty years, and this knowledge has removed many of the limitations of medicine. Strange as it may seem, the limitations of medicine which man is striving to remove, are due to man himself.

"Man is the highest type of animal, endowed with a mind capable of reason, and gifted with a means of communication with his fellows; and yet man is the very source of his own undoing. The original man was doubtless perfect in mind and body; the master of all created things. Like all organic life, his span was made up of periods of birth, growth, maturity and decay. He was doubtless able to combat his foes and sink at last, in the fulness of his years, into euthanasiac sleep. The history of man, since the fall, is like the repeated pages of a book. Vicious habits mark his footsteps, whether civilized or barbarian; his habits of work and of rest, his food and drink, are not rational; he contaminates the air he breathes, the water he drinks and the food

he eats. The water-sources and the earth, contaminated by man, become soil for the growth of the germs which infest and sicken him. His contaminated body begets a prototype, imperfect in mind and body. From the cradle to the grave a degenerate being, he fights against a mighty host, bred of his own shortcomings. Most of the infectious and contagious diseases may be classed as preventable; most of them are filth diseases, and they can not exist in the presence of perfect cleanliness."

PSYCHO-PHYSICAL CULTURE.

BY W. XAVIER SUDDUTH, A. M., M. D.

Fellow of the Chicago Academy of Medicine, Chicago.

In order to understand fully the full import of the thoughts herein involved, we shall have to consider the body as a thinking and feeling machine, possessed of a double consciousness.

Thinking, feeling and doing—these three which may be denominated as the human trinity, are so inseparably united in the life of man, that it is impossible to study the simplest physical act without considering the psychical condition or state that precedes the act. Besides, it is known that each and every act is prefigured by a thought of that act from which it has its main spring for action. It is not necessary that the thought should be a conscious one, however; sub-conscious thoughts are just as potent in determining physical conditions as conscious thoughts.

Let us, therefore, in the first place, inquire as to what is consciousness? Conscious, from *con*, together, *scio*, aware. The derivation of the word indicates an indeterminate state—a comparison of conditions or feelings, and such it is. There are degrees of consciousness and we can only know or realize the particular state of condition in which we find ourselves by comparing it with some previous state or condition. The term "conscious" is generally used as representing a state opposite or opposed to unconsciousness and is supposed to

be the normal state of man, a state in which he is able to divine and interpret his sensations—an internal perception of external conditions that relate especially to him—a condition in which he is able to cognize himself—not always, however, positively or definitely, but nevertheless a condition of awareness.

Formerly the preposition “to” was used with the word; now more commonly we see “of” or a clause or sentence introduced by “that.”

So much for the derivation and meaning of the root from which the word—consciousness—is derived. Now, as to the full word under consideration. It has a somewhat broader signification, including not only an internal recognition of external sensations, but the ability to sense one's relations, external, internal and spiritual as well, a psychical correlative. Thus, we have three states of consciousness; objective, subjective, and supra-consciousness.

The objective is generally spoken of as normal because it relates to our material life, has to do with “common sense” relationships, while the subjective has to do more with our “feelings” and here again we are in trouble, for no two writers use the latter word in the same sense. Some English writers have bodily adopted the German word *Gefühl*, while others hold that the term should be limited to more objective sense relationships. Still others have associated the term “self,” or “self-feeling,” to cover conscious appreciation of self or objective consciousness of our emotional life as opposed to our objective perception of sense relations.

In this discussion, however, let us take the term in its good old-fashioned indefinite sense as covering our intuitions, objective and subjective, i. e. our feelings. Subconscious consciousness, then relates to that part of our nature that operates beneath or beyond the threshold of objective consciousness at special and peculiar times.

Mr. Myers, in discussing the subject in a series of chapters dealing with the existence and faculties of a subliminal self, says:

“It is a part of our mind or faculty which lies below the threshold of our ordinary consciousness,” etc., etc. The term as used by him is similar in its application to our term “sub-consciousness” and might be written thus, “sub (liminal) consciousness” so as to avoid confusion if we were so minded. But, as his term has not been generally adopted, it seems best to drop it altogether and confine ourselves to the simpler one, subconsciousness, which has now almost wholly displaced the term “unconsciousness,” which formerly held sway as relating to mental processes that take place beyond the threshold of consciousness.

I cannot, in further elucidating the subject, do better than to present my definition of mind.

“Mind is the intelligence within man, natural and acquired, that makes him what he is intellectually, morally and physically.” The “natural” mind is an inheritance and operates beneath the threshold of consciousness, hence is subjective in character as objective consciousness only comes through knowledge based upon comparison of sense relationships.

Subconscious mental activity is in operation at all times, however, from the very inception of being, while “objective” or “acquired” mental activity only comes with age and understanding. The term “age” as here used relates to maturing processes, not to maturity.

The objective mind or acquired intelligence is the result of the sum total of sense experience and has its seat in the sensorium where different centers for the several senses have been definitely located.

The subjective or natural intelligence has no special seat, but permeates all portions of the body and controls the so-called unconscious functional activities, while the objective mind directs the conscious or acquired functions. The objective mind also locates what has been termed “common sense,” while the subjective mind forms the seat of the higher or “uncommon sense.”

The mind is, therefore, dual, “subjective and objective” and dreams prove the dual-

ity of the mind: Conscious thought belongs to the objective; un or subconscious thought to the subjective mind. Man is born with the subjective but develops his objective mind through experience and education.

Our bodies are alive by reason of the fact that they are possessed of subjective intelligence. Poetry, art and religion are subjective gifts.

The subjective mind is the seat of the emotions and of the memory of intellectual things, while the objective mind locates the memory of sense experiences.

Music is a subjective sense, while taste, touch and sight are related to the objective mind.

Consciousness is located in the objective mind while conscience is a subjective attribute.

The objective mind is the seat of worldly intelligence while our spiritual nature is subjective.

The power to determine between right and wrong is inborn, when it exists, hence subjective.

The subjective mind is ever active, but we are only conscious of its operation when our subjective thinking rises above the threshold of consciousness, or in other words, when our subjective thoughts become objective.

Memory is the act of calling subjective experience above the threshold of consciousness; hence is both subjective and objective in character. The process is not fully understood. Probably through association of ideas, many times this is a subconscious mental activity. Many thought processes may go on at once. You may be talking with a friend and try to recall the name of a party well known but which escapes you for the moment. "How annoying!" you exclaim, "I know his name just as well as I do yours." Well, never mind, you say, and go on talking. When, right in the middle of a sentence, you stop and say, "How strange I should have forgotten that man's name; its 'John Smith' or 'Peter Jones' or whatever it may be."

The power to dictate to several stenographers at one and the same time on different subjects also demonstrates the ability to isolate the brain centers. In a similar way some persons have the power to isolate the subjective mind.

Poets, musicians, inventors, geniuses, people whom the world call impractical, live much in the subjective or dream state. This state is said to be unreal. What is real, we would ask? Must an experience possess a metallic ring, bear the stamp of coin or smell of garlic in order to be considered real?

Not all dreams or dreamers are visionary: God bless the dreamers. In all ages they have been the daring souls that would not be discouraged by the pessimistic cry of impossible! Impracticable! They have held true to the star of hope that illumined their lives and gone ahead, many times, boldly to snatch success out of the very jaws of defeat. Thus was steam harnessed, the world circumnavigated, the lightning chained, and the earth girdled by overhead and submerged cables and every other glorious enterprise brought to a full fruition.

The materialistic spirit of a materialistic age is going down before the doctrines of love embodied in the sermon on the mount. The ideas there promulgated are becoming slowly but surely engrafted upon the human soul. Their promulgator, according to the spirit of the times in which he lived, however, was a dreamer.

A recent definition of soul is; the moral and emotional part of a man's nature, the seat of the sentiments and feelings as distinguished from the intellect.

This definition recognizes a difference between the mind and soul morally and physically.

The natural intelligence within us, is comprehended in the soul or subjective mind. The acquired intelligence is the sum total of our sense experiences registered in the cortex of the brain where the objective mind also finds its seat.

The scholastics following Aristotle held that the soul was the primary principle of

life, possessed alike by the vegetable and animal kingdoms; but that man, by reason of his power to form abstract ideas had a still higher differentiated soul than either plant or brute, that man alone had a rational and immortal soul.

The theological idea of soul at the present day is that spiritual, reasonable and immortal substance in man which is the origin of his thoughts and reasoning powers and which distinguishes him from the brute.

In considering the subject in hand, sight must not be lost of the part the emotions play in body control. The heart has long been considered the seat of the emotions, ignorantly of course, but nevertheless in so doing our forefathers were not so far from the truth as some might think, at any rate they were working in the right direction although, in their ignorance, they mistook effect for cause (which is the history of nearly all discoveries in nature) yet while blindly reaching out for the source of physical action they prepared the way for later researches.

The heart is a so-called involuntary organ, by this is meant that it is not subject to objective or intellectual control, but is readily influenced by the emotions and being perhaps the most vital organ in the body was wrongly considered as the seat of the emotions because it was so readily affected by them, whereas the true seat of emotion is found within the subjective mind, which directly controls the action of the heart and all other so-called involuntary functions.

The difference between a corpse and a living body lies in the fact that the intelligence that animates the living organism has departed in the corpse. Man, thinking, feeling, doing, is simply an intellectual machine. Mind, the motive power, is a separate entity from matter and has the power of taking inanimate matter to itself and fashioning it as it listeth. "Matter is without form and void," until it is operated upon by mind, (intelligence) when it may be fashioned into any form that may be

prefigured in the mind. The law of procedure lies in this wise: Form, the result of function; function, an effort upon the part of nature to supply or fulfill a want; want or desire, a state of mind; mind, the intelligence within that makes us what we are.

Having thus outlined the relation of the subjective and objective parts of our nature let us now consider how thoughts become manifest in the flesh—how the motive power, thought, gets hold of the lever of the body. Let us illustrate. I have a thought to cast a pebble into a pond. It may be only an emotional thought impulse and I may not act thereon, in which case no perceptible energy arises by reason of the concept, but once let the idea be grasped by the objective mind and a chain of events is set in motion the end of which may never be known. The intangible condition or state known as the emotions thus becomes the incentive to action and energy once inaugurated never ceases. It may be transformed and even transmuted but never lost. There are those who would deny the power of initiative to the mind and who claim that energy is the source of all visible action, and that intelligence simply takes hold of this already existing force and directs it into channels suited to its own purpose. They, however, have never attempted to explain the source of energy, they simply assume that it has always existed. Now, I am willing to admit that thoughts are things having needs and bounds capable of being measured and weighed also for that matter, but then thoughts are the physical manifestation of subjective ideas or concepts. And it may be, that with our advancing knowledge of the physical nature of ether that we shall find that even ideas have a physical basis and that back of these yet there exists a more refined state of consciousness that may be denominated as "supraliminal" as distinguished from "subliminal" or subjective. I am inclined so to believe, but am hardly prepared, as yet, to commit myself to the theory. But this I know, that back

of all states of consciousness is a universal intelligence, from which all are permitted to draw at will only hindered by their own obtuseness or lack of knowledge as to the correct methods to adopt in order to avail themselves of this vast source of information. Psychologists are coming to acknowledge states that transcend reason and sensation, yet in all these states consciousness is continuous. When we awake from an anesthetic condition, sleep or trance, we are conscious of having been unconscious, hence we must have been subconsciously awake, or we could not afterwards have been aware of the fact that we had been "unconscious." Hypnotic experiments amply prove the truth of this proposition; as it is well known that amnesia may be established by suggestion and memory of even the minutest details afterwards restored at will.

For many years I have practiced "keeping in touch" by continuous "suggestion" with patients while they were going into and during the anesthetic state. As long ago as 1881 I demonstrated conclusively to myself and others that consciousness could thus be kept intact during a prolonged administration of ether and that the anesthetic state, produced by nitrous oxide gas, could be extended almost at will by suggestion.

In 1896 I made a test case regarding the continuance of consciousness during ether anesthetization on a small child by relating a "made up" fairy story which lasted during the time required for the administration of the ether and the subsequent operation. The etherization was complete as was witnessed by the stertorous breathing and anesthesia. After the operation the fairy story was related by the child without any serious omissions. In not a few instances have I had patients say to me after an operation under an anesthetic: "I knew what you were doing all the time, but it did not hurt and I could not move." Dr. S. O. Goldman, of New York, recently published an account of a case in which consciousness seemed to have been almost perfect, although no pain was felt during

the operation. Afterwards the patient remarked to the Doctor that "she had endeavored by moving her finger to let him know that she knew everything that was occurring, yet felt no pain." Respiration was deep, regular and stertorous in character.

Consciousness may, at times, be objective and at other times subjective. There is, however, no break in the stream of consciousness, and while these states are separate, and distinct in their essential make-up, yet they mingle with each other under favorable conditions, but, like oil and water, as readily separate again. The relationship is an interrelationship only, and while each influences and modifies the other by reason of such close union, still each maintains its own individuality. But it is not our intention to enter into the discussion of this part of the subject any further than is necessary in order to establish the channel of thought action in diseased conditions and point out the probable line of procedure necessary in order to establish healthy function, when once it has been disturbed, by calling to our aid the active co-operation of suggestion, attention and desire as dynamic forces of the mind.

Nature has beneficently arranged her plans so that all necessary function is pleasurable and, in the main, performed within the realm of the subconscious; whenever any function comes prominently into the field of consciousness so as to fix itself in the attention it is in serious danger of becoming diseased. It is neither comfortable, nor safe for the working of any bodily function, except under the direction of a skilled physician, to come under the influence of the attention for any considerable length of time. This danger will be more fully appreciated when it is known that attention is the off-spring of the emotions and consequently embodies motor phenomena. It, attention, therefore may become a serious vital depressant or hyperexcitant, but the converse is also true, that rightly directed it may be made a powerful stimulant to increased functional activity,

and thus aid in the restoration of healthy function.

Ordinarily, attention is an effect and not a cause and nature has so ordained it, otherwise it might be made to hold on to some one function, persistent idea, to the exclusion of all others and thus act to the detriment, if not the fatal injury, of the organism as a whole. The highest achievement of volition conceivable is fixation, by force of the will of a disagreeable object or function in the attention and there keeping it continuously until ideo-motor impulses have arisen. In such instances the fact is plainly demonstrated that attention is an effect with motor impulses and under the control of the will of the individual. The will in this instance works by inhibition, and suggestion, operating through the will, tends to fix the attention on one object or set of ideas consequently making attention its basis of operation.

As has been shown, attention may be divided, for convenience of study, into two forms; natural or involuntary and voluntary or educated. The first is exhibited by all animals, man included, and is the lowest form of this force. It is the form also that has to do with most bodily functions. The second form, educated attention, is the higher of the two and to a very great extent, is confined in its manifestations to educated man and a few of the domestic animals. The power of attention is in a direct ratio to the intelligence or intellectual attainments of the individual irrespective of genera, species or sex, and depends upon the action of the will for its maintenance and is therefore essentially a motor phenomena acting through the muscular system. It may become an inhibitive force when so directed by the mind as well as a progressive power. Healthy function, as we have indicated, is a pleasurable habit, or should be, and in its natural performance belongs to the realm of involuntary subconscious activity. This is shown by the bodily habits of dumb brutes and uncivilized man. In the gratification of their animal desires and the performance of nec-

essary bodily function these respect neither times, persons nor places. The same may be said of the infant off-spring of civilized man and household pets in general. Not until they have been taught by experience, do they show any sense of the fitness of things. Even in those commonest of functional activities micturition and defecation. Necessity and the frequent calling of the attention to the ethics of the matter finally, if the individual is possessed of any degree of intelligence, places these functions on the voluntary list and brings them under the domain of voluntary attention, thus demonstrating that voluntary attention is a child of education, the product of civilization.

Now, if compulsory education can be made operative in the above instances, and in many others, had we time to recount them, it stands to reason that if the means of enforcing or directing the attention could be known for each and every function, voluntary functional control could be established and made universal in its operations throughout nature. Not only this, but abnormal conditions could be righted by similar methods. I believe that the day is not far distant when every involuntary function will be superceded and that man will be able to bring all his organs under subjugation to his will. The heart and uterus have hitherto been classed as involuntary organs but psychological investigators in the domain of hypnosis have demonstrated that they are amenable to suggestion to a greater or less extent, in susceptible subjects, and if this is true in certain cases, it goes to prove the possibility of control in all instances.

James Mark Baldwin, M. A., Ph. D., Stuart Professor of Psychology in Princeton University, in a recent work (1895) on the "Mental Development in the Child and the Race," in discussing the subjects defines suggestion: "As the tendency of a sensory or an ideal state to be followed by a motor state," and says, "it is typified by the abrupt entrance from without into consciousness of an idea or image, or a vaguely

conscious stimulation, which tends to bring about the muscular or volitional effects which ordinarily follow upon its presence."

"Janet defines suggestion as 'a motor reaction brought about by language or perception.'" This narrows the field to certain classes of stimulations, well defined in consciousness, and overlooks the more subtle suggestive influences emphasized by the Nancy school (of theorizers). Schmidkunz makes it: "die Herbeirufung eines Ereignisses durch die Erweckung seines psychischen Bildes."¹ This again makes a mental picture of the suggested 'event' in consciousness necessary, and, besides, does not rule out ordinary complex associations. It neglects the requirement insisted upon by Janet, i. e., that the stimulus be from without, as from hearing words, seeing actions, objects, etc. Wundt says: ("Suggestion ist association mit gleichzeitiger verengung des Bewusstseins auf die durch die Association angeregten Vorstellungen.")² "In this definition Wundt meets the objection urged against the definition of suggestion in terms of complex association, by holding down the association to a 'narrowed consciousness;' but he, again, neglects the outward nature of the stimulus, and does not give an adequate account of how this narrowing of consciousness upon one or two associated terms, usually a sensori-motor association, is brought about." Ziehen says: "In der Beibringung der Vorstellung liegt das Wesen der Suggestion."³ "Here we have the sufficient recognition of the artificial and external source of the stimulation, but yet we surely cannot say that all such stimulations succeed in getting suggestive force." "A thousand things suggested to us are rejected, scorned, laughed at. This is so marked a fact in current theory, especially on the pathological side, that I have found it convenient to use a special phrase for consciousness when in the purely suggestible condition, i. e., 're-active consciousness.' The phrase 'conscious reflex' is sometimes used, but it is not good as ap-

plied to these suggestive re-actions, for they are cortical in their brain seat, and are not as definite as ordinary reflexes." Baldwin continuing says, "For my present purposes, the definition I have given from my earlier work is sufficient, since it emphasizes the *movement side* of suggestion. The fundamental fact about all suggestions,—not hypnotic suggestion alone—which some of the definitions which I have cited, have exclusive reference to—is, in my view, the removal of inhibitions to movement brought about by a certain condition of consciousness, which may be called 'suggestibility.' The further question, what makes consciousness suggestible, is open to debate. There are two general statements,—not to elaborate a theory here, however—which are not done justice to by any of the earlier theories. We may say first, that a suggestible consciousness is one in which the ordinary *criteria of belief* are in abeyance; the co-efficients of reality, to use the terms of my earlier discussion of belief, are no longer apprehended. Consciousness finds all presentations of equal value, in terms of uncritical reality-feeling. It accordingly responds to them all, each in turn, readily and equally. Second: This state of things is due primarily to a violent reaction or fixation of attention, resulting in its usual monoideism, or "narrowing of consciousness."

In a state of full or complete consciousness our two minds are co-ordinate, each alert and active to support the other. In the normal condition this interdependence and association is good for the organism. It develops a state of self reliance and individuality, that is to be commended. But when a condition of disease or mental disarrangement exists the co-ordination of the two minds tends to maintain the diseased condition. In order to reach the seat of the derangement we must dissociate these two states of mind or consciousness.

The objective mind which represents the objective individuality of the individual, rebels at advice (suggestion) and the degree of the rebellion, in some instances, is in a

1. Psych. der Suggestion.

2. Hypnotismus u. Suggestion.

3. Philos. Monatshefte xxix. 1893, p. 489.

direct ratio to the deviation from the normal. Hence, in order to administer suggestion successfully the objective attention must be fixed and thus bring about a condition of dissociation of consciousness.

An idea, sensation or experience which once comes within the grasp of our sensorium, consciously or subconsciously remains ever after to influence our bodily functions and actions in life. Changes in consciousness are reflected in the domain of the physical whenever the circumstances or conditions are propitious for their production. Time will not permit to enter into the discussion of the modifying influences of pre-existing states of consciousness upon new perceptions, permit me to say though, in passing, that the latest thought-acquisition has to pass through the test of psychical digestion and assimilation much as does organic matter in the physical body, before it finds its place among recognized mental states.

The intimate relationship existing between mental states and physical conditions is only to be understood by a close investigation from the standpoint of experimental psychology. Biology has thrown very little light upon the subject, except to reveal the mechanism, by reason of the fact that biological processes, to a greater or less extent, annihilate the vital element. The subject is best considered from the standpoint of the psycho-physical.

We have dwelt thus at length on the purely psychical side of the question in order to intelligently establish a foundation for the erection of a superstructure in the physical. I am conscious, however, that even this statement will meet with opposition from materialists, who consider mind a less substantial basis for operation than protoplasm.

Psycho-physical culture, however, primarily has its inception in the mind, and mind and body must co-operate. While direct benefit to the body comes through carrying out of the objective thought, yet the greatest benefit is drawn from the concentration of the subjective mind on the re-

sult to be obtained by the exercise. The exercise is made the means of administering the suggestion. We thus call into play that potent agency "expectant attention" which Dr. Hunter pointed out as early as 1786, as one of the most remarkable forces in nature.

Auto-suggestion is more potent than direct suggestion. The best means of using suggestion in practice is yet to be discovered. In fact, the *modus operandi* of its action is not fully understood.

In my practice I teach emotional control through muscular control and psycho-physical culture occupies a prominent place in my pharmacopœia.

Medically speaking, it comprehends a thorough system of gymnastics and breathing exercises which may be used as the basis for administering suggestions, auto and direct, looking toward establishing a healthy state of body and mind in a patient. Harmonic gymnastics may be defined as a series of rhythmic motions which tend to teach emotional control through muscular control rather than develop muscle.

Dynamic breathing includes the so-called Yoga practice of breathing exercises, that are known to possess real life-giving power.

It is impossible, however, in the short time allotted me to even outline a system of procedure. In fact, I have no system. I study each case as it presents and prescribe the exercise which seems best adapted to the needs of the case in hand. I have culled some two hundred exercises from the different systems in vogue and adapted them to the needs of my practice, which as you know, is confined to nervous diseases and drug habits. I employ Delsarte graduates as attendants and instruct them in the medical use of that system. I have a school for attendants and employ the highest order of intelligence that I can obtain. The ordinary "trained nurse" is of little use in handling nervous cases. I train my own, and do not call them nurses, but attendants.

Dr. Curtis recently published a paper advocating a system of harmonious vibrations

to be administered while the objective attention was engaged by looking at a kaleidoscopic image thrown on a screen by a stereopticon.

I long ago gave up this passive method of treating patients and now let them "work out their own salvation with fear and trembling;" it is true in many cases, but then when they have "worked it out" they have something to take home with them that they can use for relief in the future if they should ever stand in need of such aid.

I obtain the same condition of harmonious vibration as does Dr. Curtis, but through the patient's own effort, which I hold is much more scientific and lasting in its effect, than is the method advocated by him.

Patients are given a regular course of physical culture, which is practiced to the accompaniment of music, and at certain stages of the course, are required to intone on a note that has been specially prescribed for the case in hand. This is done by requiring the patient to take a note from the piano, pitch-pipe or tuning fork, and to hold it while going through certain movements. In some cases, for instance, where it is desired to raise a patient out of a fit of despondency, he is made to inhale on tones of various musical scales, beginning, say, to inhale while sounding the musical note corresponding to G, and exhale while sounding the musical note corresponding to E in the scale of C natural. This is the only perfect scale, and is therefore the model for all other scales, so that when once in harmony with it the bodily key note or scale of an individual is readily determined. It is very difficult to describe the *modus operandi*, because each case is a study unto itself, and special methods have to be adopted in every case, no general rule being applicable to all cases.

The keynote of a patient varies from day to day, and in different individuals. You ask how to get it? This is not very difficult. There are many ways. The experienced operator along this line of practice instinctively feels the vibration of his patient and

will unerringly adopt the correct note upon which to exercise the patient. There are, however, methods that are thoroughly scientific for obtaining the keynote of an individual. One of these is by closing the ears with the fingers and permitting the patient to hum the scale. When he strikes a note that is in consonance with the note heard in his ear, have him hold it until it is found on the piano or tuning-fork. Another way is by permitting him to run the scale until he finds the tone that causes all of his air cavities to thrill and vibrate simultaneously. He will sense it in his chest, throat, head and nose.

Both of these methods are, however, amenable to error, in that the patient must be depended upon to determine when the note of the scale is in consonance with his body note.

Another method not open to the above objection, and which is sometimes used, consists in having the patient speak or hum into the receiving tube of a phonautograph devised by Scott and improved by Kœnig. The instrument somewhat resembles a phonograph, although when in use its mechanism is reversed. Instead of giving out sound, it is a sound receiver. As its name indicates, it is a self-registering sound apparatus and is a modification of the drum and tuning-fork arrangements so commonly in use in physical laboratories. All the waves that enter the paraboloid impinge on the membrane and throw it into vibration. On the side of the membrane next to the cylinder is attached a very fine and light style, which faithfully inscribes on the smoked paper around the cylinder the slightest motion given to the membrane. By means of a small adjustable clamp, held in position by a screw, it is possible, with a second screw, to regulate at will the tension of any given point to the membrane. In this way we can obtain a record of any sonorous wave that enters the paraboloid. By this instrument we find that each sound traces out its own characteristic curve—writes out its own distinguishing autograph. Some sounds give indentations

much like those of the tuning-fork, while others, like those of the human voice, give rise to sinuosities of much greater complexity.

By means of a tuning-fork, which is kept in vibration simultaneously with the style, the frequency of any sound can be determined with the greatest ease and precision. The process is identical with that used in estimating the vibration of an elastic rod. We have traces of both the sounds made on the smoked paper, and knowing the frequency of the fork, we have only to count the number of sinuosities of each sound corresponding to any given distance on the paper, when a simple proportion will give us the number of vibrations made per second by the sound collected by the paraboloid and recorded by the style attached to the membrane.

Let a patient sing a prolonged note into the open end of the reflector. On turning the cylinder we have the curve peculiar to this note, and at the same time we have the sinuous line produced by the tuning-fork. Then count the number of vibrations made by the voice for any given length of time, and suppose we find that the voice makes one hundred and eighty sinuosities while the fork makes seventy. What is the frequency of the note sung, that of the fork being one hundred? When the fork makes seventy vibrations, the voice makes one hundred and eighty; when the fork executes one hundred vibrations, the voice executes x vibrations. Putting this in the form of a proportion, we $70:180::100:x$, from which we find the value of x to be 257.1-7, which corresponds almost exactly with middle C of the pianoforte.

In this way, unknown to the patient, his note of vibration may be obtained while he is carrying on an unembarrassed conversation, i. e., the rate of his bodily vibration will be registered on the smoked drum alongside the register of a tuning fork of known vibration, and a comparison of the two lines will accurately determine his rate of vibration, and from this his keynote may be obtained as above indicated.

In practice it is empirically taken for granted that all patients vibrate inharmoniously; in other words, are out of tune, or they would not present themselves for treatment. There being no fixed body note that may be said to be normal, having found the keynote of a patient it is considered as abnormal and a series of experiments are begun in changing the rate of vibration and carefully noting the effect. When a change is found to be beneficial it is persisted in until its efficacy has been exhausted, when another change is made, and so on until the pathological symptoms have all disappeared.

Harmonious sounds are not, however, used to the exclusion of other means. The different forms of electricity, with their now well known variations, are fully employed as indicated, but most common of all is the electro-thermal and electro-solar bath.

The latter is the modern application of the old sun baths, with different colored glass. In this instance colored glass globes in the form of a series of incandescent lights are substituted for the vari-colored panes of glass formerly used. A very elaborate electro-thermal cabinet is used, with four rows of incandescent lights, one white, another red, still another blue, and the fourth green. It has been found by experimentation that a red bath is stimulating, a blue bath quieting, and a green bath depressing. These are used *ad libitum* as indicated in treatment.

Bearing upon this point a very interesting line of experiments was conducted by the well known French physicist, Camillo Flammarion, at the Agricultural and Climatological experiment station at Juvisy, indicating plainly the effect of different colored lights upon plants. The result is of special value, practically and theoretically, to us as well as to plant physiologists and climatologists.

It has been clearly shown by the various experiments that ordinary colorless light is represented by natural sunlight, because when exposed only to it, health and natural

growth reign. Colored light, according to the particular color used, causes either one-sided acceleration or retardation of development of the plant.

In his most interesting experiment Flammarion adopted the plan of exposing sensitive plants (*mimosa sensitiva*), which he raised from the seed, to different colored light. These plants are specially sensitive to the effect of light and to touch and were, therefore, well adapted for Flammarion's experiment.

He planted a number of seeds and the seedlings, after they reached a height of about one inch, were planted in pots in pairs and placed in a hothouse, where each pot received the same quantity of light and even temperature prevailed, so that the plants were subjected to the same conditions. But the experimenter placed over some of the plants bells of green, red and blue glass, while others received the sunlight through the plain glass of the hothouse window.

The effect of the colored light was soon perceptible in the development of the plants, and the more they developed, the plainer this difference became, until, at the end of two months, the plants under the red glass were sixteen inches high, those under the green glass measured only five inches, and those under the blue were only one inch, while the plants that had been left in the colorless light were four inches high.

The red light forced the plants most, for those subject to it blossomed five weeks after the seeds were planted, and the stems were much longer than the stems of the other plants. The difference between them and those exposed to the blue light was most marked. The leaves of the latter were, indeed, dark green, while the leaves of those subjected to the red light were pale, poor in chlorophyl. But the plants themselves seemed unhealthy and stunted. They had gained nothing in height since they were placed under the blue glass. Therefore, it was proved that the blue light was not only an impediment, but an actual injury to veg-

etation. The effect of the red light was noticeable, not only in the growth of the plants, but also in their sensitiveness, for even the slightest touch, a breath, was sufficient to cause the leaves to close and the little stems to droop. The plants exposed to white light only were not so easily affected, and those raised under blue glass were not at all sensitive. Those raised under white light must be considered normal. They were more stocky, and showed a greater tendency to bud, but the buds did not open.

It is interesting to note in this connection that, while green light seems more stimulating to plant life than either white or blue light, in its action on the animal organism, the reverse is true, and green is more depressing than blue. The different influence of blue and green upon plant and animal life may be accounted for on the ground of the absence of chlorophyl in the animal organism and its presence in the plant. Not only this, but the different shades of green act differently. The shade of green most common in spring foliage being most depressing to man, which may account for the prevalence of spring fever, so-called, in the spring of the year.

It is not to be considered that because green is depressing, however, it is necessarily injurious to the human organism. In many cases the depression is just what is needed, especially in nervous cases, where the bodily tension is high—those cases where the bromides would be administered in general practice.

The use of color in the form of clothing in the treatment of insane patients has also been adopted with marked success. As succinctly related by a recent writer, "Clear delicate blues are found to exercise a sedative or calming effect even upon those suffering with very violent manias. Yellows are exceedingly efficacious in combatting melancholia or extreme depression. Scarlets and vivid reds will raise the drooping spirits of many depressed and mentally disordered individuals. Bright, tender, spring-like greens will cause life to take on a new aspect and become worth living to

insanity victims with suicidal tendencies. Violets are soothing, browns and grays dulling in their effects, while black is distinctly and generally bad. Some insanity experts even go so far as to forbid the attendance upon their patients to wear black at any time."

In addition to the modified Delsarte and other physical methods, suggestion is more or less extensively used in the handling of patients, a sort of psycho-physical culture, using the physical exercises as a means of administering the suggestion. As, for example, with the use of the red light, the idea of "light-force and stimulation" are strongly held forth. With the blue bath the thought of "quiet and rest" are presented, and the patient's mind is led to dwell on the blue sky, summer verdure and singing birds. Great stress is laid upon proper methods of breathing and a thought is given with every exercise, tending to reinforce the benefit received from the exercise by the mental attitude of the patient toward the experience through which he or she is passing, and by thus strengthening faith in the means employed for cure, build up hope, and hasten and insure final recovery.

ETIOLOGY OF ECLAMPSIA.

BY CHARLES B. REED, M. D., CHICAGO.

Demonstrator of Obstetrics, Northwestern University
Medical School, Attending Obstetrician, Chicago
Lying-in-Hospital and Dispensary.

It would seem as if some apology were necessary for again presenting to the Society a paper on the etiology of eclampsia after the subject had been so exhaustively discussed by the eminent essayist of a year ago, but the great importance of the subject and a desire that the Society may use its opportunities to experiment and investigate in a new direction is sufficient justification.

The year has brought forth some new material which is extremely suggestive and of great interest in this connection.

The etiological agents which have been

so thoroughly discussed and rediscussed are doubtless familiar to all of you and will receive no mention further than the statement that for the purpose of this paper all phenomena in connection with the brain, ureters and urine to which hitherto etiological importance has been attributed are not to be regarded as etiological factors, but only as results or at most as of accessory importance.

It is evident at the outset that this statement does not harmonize with many currently received opinions on this subject but I hope to show with some plausibility that a different doctrine is at least entitled to earnest consideration.

The preponderating significance of the blood and circulatory apparatus as carriers attracts the attention to the theory which seems to me to present the greatest degree of inherent probability to-day,—a toxemia, with a possible predisposing cause in hereditary irritability of the nervous system. A condition of the blood induced by the circulation wherein of a poison or poisons, the nature of which is at present undetermined. It is not uric acid, it is not creatin, but it is known that there is excreted by the urine a toxin as yet unseparated (Fultz and Ritter, confirmed by Bouchard) which may upon final isolation and analysis be found to be this poison from the circulation, probably a leucomaine of the uric acid group.

For the reasons which follow it is believed that the source of this toxin is in the uterine metabolism. This opinion, supported by the investigations of Lange from whom extensive quotations will be made later, follows from a logical examination of the general conditions associated with eclampsia. It is well established that eclampsia only occurs during pregnancy and the puerperium. The system of the eclamptic therefore is the same as before pregnancy with the one exception of the growing uterus and its contents. Only such metabolic product then can be considered which occurs either entirely in pregnancy, or in much greater quantities than in other persons.

The foetal origin of the toxin is well supported by such names as Chrobak, Potter, Byers, Kollmann and many others, but to establish this position it is necessary to show a direct connection with the foetus in utero and aside from the difficulty if not (at present, at least) the impossibility of doing this, all of the conditions would not be fulfilled as for instance in the post-partum cases. It seems more probable that either the uterus or placenta, or both, conjoined are the responsible sources of the toxin. The placental metabolism is not yet sufficiently understood to be considered in this connection more than to refer to its possibly great importance (Schmorl) in the alteration of the maternal blood by some coagulating substance. Gynecologists have long recognized tachycardia during the presence of fibroids, and why is it not possible that the active, proliferating muscle cells in the growing uterus should develop a metabolic product which may produce systemic effects, and as in some cases of fibroid a distinct myocardial degeneration, sometimes ending fatally (Riesman). The large size of the uterus is not the cause of the eclamptic attack for this condition is found in other states of the organism where eclampsia does not occur as in the large fibroid and ovarian tumors.

It was shown by Winckel and confirmed recently by Byers and Morisani, that when the foetus dies in utero, even when the premonitions of eclampsia are present, the danger is greatly diminished if not entirely removed, and when the child is living and premature labor is induced the attacks usually cease. The inference is, that when uterine activity is abolished the possibility of an attack is greatly diminished.

This is further supported by the fact that attacks occur more frequently among pluriparæ, which is due not to distention nor to the presence of one or more additional ova, but results directly from the necessarily increased uterine metabolism.

Perrochet closely approximates the above conditions when he attributes the cause of the eclampsia to a poisoning of the blood

(through metabolic products out of the placental circulation, urate poisoning and ptomaines) and further states that the poisoning increases the irritability of the brain.

The clinical history of eclampsia is that of toxemia and according to Zweifel, multiple thromboses and invariably found post mortem in the liver, lungs and brain of all fatal cases which would indicate the presence in the circulation of some product of organic change with blood coagulating power.

It has been shown by Chamberlent's experiments that the toxicity of the blood is increased in both mother and child when the former presents eclamptic symptoms. As Koetenbach says, "The prodromata, gastric and cerebral symptoms, the rapid occurrence of serious disturbance of the brain, the post-mortem increase of temperature, the nature and frequency of the nerve disorders that follow and find their analogy in the neuroses consequent upon typhus and diphtheria probably caused by toxalbumens, are scarcely to be explained unless by the theory of blood poisoning."

The post-mortem appearances also confirm the belief that the toxine works throughout the blood. Schmorl found (in 17 cases) the liver hemorrhagic (sometimes anemic) necrosis of the parenchyma, venous and capillary thromboses in the vicinity of the necrotic foci, but not in the necrotic portion, thus showing that the thrombus represents the beginning of the process. The liver presents nothing pathognomonic of eclampsia, but of infection, degeneration of the liver cells with or without hemorrhage (Bar and Guyisse).

The lungs show extensive venous and capillary thromboses and oedema; the heart flaccid, the spleen enlarged.

The pathological alterations which Jagodinsky found in eight cases of puerperal eclampsia are interesting in this connection. In the cerebral cortex and in the ganglia there was cloudy swelling and fatty degeneration of the nerve cells, in some cells even necrosis. Blood extravasations in the vicin-

ity of the vessels and effusion of white blood corpuscles. The neuroglial cells were increased. He attributes these changes to inflammation, but they easily adjust themselves to the present theory.

Toxines tend to spend their power largely upon the nervous system and in proportion to the development of the nervous system their effects become more perilous. The particular form of nervous system wherein eclampsia will arise most frequently because it is the most sensitive, is the one wherein we find hysteria or epilepsy, neurasthenia or dipsomania, and indeed neuralgias of long standing, and this influence can be transmitted by families and would naturally be increased in the unmarried. It is not sufficient, however, to say that this nervous disposition will explain the vomiting, chorea, faintness, headaches and vagaries of a pregnant woman, nor is uterine reflex satisfactory.

Many of the infectious diseases begin with vomiting, and in them, as in pregnancy, it may be so persistent as to threaten life; here also albumen appears in the urine after a longer or shorter time, and may herald the approach of uremia with eclampsia or coma or both.

It has been definitely settled by many observers that the heart is enlarged in pregnancy, the left ventricle more than the right, it increases during the course of gestation, is at its height at labor and disappears when delivery is accomplished.

If in scarlatina we first see vomiting, then nervous disturbance, then albuminuria, then enlargement of the heart, we would say there was certainly some toxin circulating in the body. Why not in pregnancy? This hypothesis has been greatly strengthened recently by Lange's very interesting article on the thyroid gland in relation to pregnancy.

His work extended over four years and as the result of his examination of human females, and experiments on pregnant cats, he concludes: "That a hyperplasia of the thyroid gland is physiological in pregnancy," thus confirming Freund's investi-

gations. "That the hyperplasia has never been observed (by me) in the affection of the kidney peculiar to pregnancy, in chronic nephritis, on the contrary it occurs in pregnancy. Pregnant animals (cats) require for the maintenance of their health larger thyroids than the non-pregnant. After the total extirpation or the removal of more than 4-5 of the thyroid, tetanie occurs in pregnant animals which is promptly relieved by administration of thyriodin. When a remnant of the gland is left large enough to keep a non-pregnant cat healthy, there will occur in the pregnant cat, a kidney disease of rapid course, which sometimes gets well without bad symptoms after the cat litters and at other times produces convulsions and coma. These convulsions are not identical with tetanie and are just as little influenced by the thyriodin as the coma. Thyriodin has an undoubted symptomatic influence over the pregnancy kidney of women, whether specific or not remains to be determined."

He examined 133 pregnant women and in all but 25 (3 of which were doubtful) he demonstrated thyroid enlargement at some period of the pregnancy. In the 18 cases wherein the gland was not enlarged there was absolutely demonstrated "pregnancy kidney," and albuminuria which in 6 instances terminated in eclampsia, and in 4 other of this small number severe headaches appeared, which we have always dreaded as premonitory signs of eclampsia. In two cases where nephritis was present before pregnancy the gland enlarged as usual.

The significance of these findings is very great if they are confirmed and developed by further experimentation. To test the hypothesis let us assume that a product as yet chemically unknown arising from uterine metabolism is poured into the blood and by its presence exercises a specific influence upon the thyroid gland, whereby a hyperplasia of the latter is gradually produced which may be called "pregnancy goitre" and the glandular secretion, probably thyriodin (Bauman), which represents most nearly the product of the physiological

activity of the gland, is developed in large quantities. The function of the thyroid is to regulate metabolism and the product of the activity of the hyperplastic gland is hostile to the uterine product and destroys or neutralizes it. In this case the pregnancy would run a physiological course and exhibit a minimum of the usual disorders of pregnancy. This may occur where the kidneys are healthy or in the presence of a chronic nephritis.

Assume again that for some reason the physiological hyperplasia does not appear, as in the 18 cases recorded by Lange. The uterine metabolic product imperfectly neutralized by the small thyroid and the insufficient production of thyroiodin circulates through the system and produces the toxæmia, the effects exhibited being one of degree. The kidneys and the bowels assist in the disposal of the toxin. Probably a large portion is absorbed by the kidneys and excreted possibly in an allotropic form.

If in too large quantity for easy elimination by the kidneys, or perhaps from the direct effect of the substance in its passage or by its presence in the blood, albuminuria occurs and pregnancy kidney. The albumen is not the toxin, but an effect of the toxin, an alteration in venous pressure will produce albuminuria, and the circulation of toxins of diphtheria and scarlatina will do likewise.

In exceptional instances the kidneys may excrete the toxin without evidence of disturbance. If from excess of production or inefficiency of the thyroid a gradual accumulation of toxic material occurs, the symptoms of toxæmia slowly appear with the usual signs of intoxication.

Persistent vomiting is the most constant of these and may be the only symptom exhibited throughout the pregnancy. In other cases the system reaches the point of saturation and a trivial incident may suddenly precipitate a maternal eclamptic attack, intra-uterine eclampsia or premature labor, as Olshausen observed in 40 per cent. of his cases.

It is interesting to compare the various

periods of the eclamptic seizures with the periods of glandular hyperplasia.

In pregnancy the eclamptic attack is most common from the seventh to the ninth month. The "pregnancy goitre" appears in primiparæ usually in the sixth month, and in multiparæ in the fifth, thus anticipating the possibility of attack by from two to three months, but the greater part of the attacks occur about the tenth month when the uterine metabolism has reached its maximum.

In cases which occur post-partum, the cause may arise from the process of involution, and the consequent increase in the system of cell products, or the toxic product of uterine metabolism locked up in the cells of the uterus may be released by involution or suddenly by the pain activities and thrown in large and unmanageable quantities upon the system.

Further observations and experimentation is necessary to confirm our belief in this hypothesis, but it is certainly a relief to turn from the numerous and unsatisfactory theories of the past to one with so promising an outlook.

THE TREATMENT OF ECLAMPSIA.

BY JOSEPH B. DELEE, M. D., CHICAGO.

Professor of Obstetrics Northwestern University Medical School, Obstetrician to Mercy and Wesley Hospital, and Chief Obstetrician to the Chicago Lying-in-Hospital and Dispensary.

It is unfortunate that the real cause of this terrible affection is yet unknown, but we are grateful for the slight advances in our knowledge that have been made in the last few years. The discovery of toxemias, the valuation of the importance of renal disease to eclampsia, the recognition of the liver as an elaborator of poisons, the role of auto-intoxications, of the placental metabolism, all these have served to clear up previously cloudy aspects of this disease, they have widened the field for research, and they have shown that not one cause, but many causes, either alone or together,

contribute to the production of the accident.

With the exception of the means of prevention however, later knowledge has added little to our fund of information regarding the treatment. We are still in the realm of empiricism. Nearly every mode of treatment presents a dark and a bright side, arguments for and against each sometimes evenly balance so that individual experience or even preference has to decide in a given case.

Cases vary very much, sometimes apparently severe cases get well while milder ones die, one practitioner may meet favorable cases while his neighbor gets the fatal ones. The former will acquire a bounding faith in a particular remedy or mode of procedure, while the latter becomes nihilistic to all methods of treatment. For this reason, perhaps, here more than anywhere else in medicine, enthusiastic reports of success in eclampsia with medication, should be reluctantly accepted.

The writer in the short time allotted, cannot present all the methods of treatment that have been used and discarded, lauded and contumed, nor even all the present methods, by no means few, with the authority, arguments and statistics for and against each, so will describe the treatment as is practiced by him.

Without going into the causation, which was done by the previous essayist, we may say that in all probability eclampsia is due to a poisoning of the blood, from unknown source or sources, which poisons, owing to some impairment of the liver as an elaborator of poisons, or to inefficiency of the kidneys as eliminators of poisons, accumulate in the blood and acting upon an already hyperexcitable nervous system, cause convulsions, by influencing the vaso-motor centers of the brain, convulsions, if the pons and medulla are involved, coma, when the cerebrum is affected.

The latest writers are prone to ascribe most of the cases to a toxemia, relegating the nephritis to second place. In the vast majority of eclamptics there are distinct

evidences of nephritis, or at least of the kidney of pregnancy, either in the urinary findings, or at the post-mortem. The writer cannot but think that the kidney of pregnancy is a low grade of inflammation. The toxemia may cause the nephritis, and the nephritis may cause a toxemia by impairing the eliminatory power of the kidneys. Thus a kidney that under ordinary circumstances did satisfactory work, may under the added strain of pregnancy give out completely.

Light is breaking on the subject from a new direction. Lange claims to have found that deficiency of the action of the thyroid gland may cause albuminuria and toxemia, which disappear on the administration of iodothylin. His work is not yet near complete, but there is some promise in it, and it deserves more study.

Foremost in the line of prevention is the recognition of toxemia, and close to it, the recognition of renal insufficiency. The perfunctory testing of a single sample of urine for albumen is not sufficient. Even repeated thorough examinations of the urine are not sufficient, as eclampsia has occurred with normal urinary findings. Toxemia may exist and the urine not discover it, but this is very rare. Nevertheless this is the best test we have, its careful examination together with watching for general symptoms will almost invariably give the physician sufficient warning.

Many of the little ills of pregnancy are due to deficient excretion. Headache, neuralgias, insomnia, vertigo, fainting spells, nausea, vomiting, stomach ache, sometimes running under the formidable name of rheumatism of the uterus, can frequently be traced to this condition. May not chorea gravidarum, pernicious vomiting, perhaps the grave anemias be caused by this blood state?

The above symptoms should call the attention of the physician and warn to a careful examination of the patient and the urine.

Just before an eclamptic attack, the pulse is rapid and of high tension, there is

violent headache, dizziness, failure of the memory, a boring pain in the pit of the stomach, flashes of light, the patient says she sees spangles, or may be blind, tinnitus aurium, often vomiting and twitchings of the muscles of the face and extremities. A vigorous venesection and a good dose of chloral will prevent the imminent seizure.

Signs of renal insufficiency are all these, together with oedema of the extremities and face and the findings in the urine, albumen, casts, red and white blood corpuscles, decrease in the urea, low specific gravity, or decrease in the total amount voided in twenty-four hours. The other secretions are usually found also locked up, the skin is dry, thick and muddy, there is little perspiration, the patient has a disagreeable odor, the bowels are constipated, the tongue is coated brown, there is *fœtor ex ore*.

A healthy pregnant woman should pass sixty ounces of urine daily, the specific gravity should be 1010 to 1016, that is the total solids the same as in the non-pregnant state. When the total solids are less than 30 grams a day, symptoms of toxemia are to be awaited. One will be occasionally surprised to find a patient in excellent health with urine of 1004 sp. gr. From this we can judge that the nature of the toxine is all-important. The urea should show $1\frac{3}{4}$ to $2\frac{1}{4}$ per cent. When the percentage of urea goes below one there is insufficient excretion, and means should be adopted to raise it, though sometimes symptoms of toxemia are late in appearing.

In considering the treatment there are three things to be borne in mind. The diet must be ordered so that there is just sufficient nitrogenous matter given to sustain life, in the form that is most easily assimilated, and that will leave the least amount of waste and by-products, that only throw extra work on the kidneys. Secondly, the emunctories should be stimulated to throw off the surcharge of poisons already in the blood, and kept acting freely throughout pregnancy. Thirdly, should the above treatment not have the necessary effect, should the symptoms of renal insufficiency

increase, or should the signs and symptoms of a real nephritis appear and grow worse, then the induction of premature labor is not alone justifiable, but strongly indicated.

In aggravated cases of toxemia and where the kidney is involved in even a moderate degree, it is well to place the patient on an absolute milk diet at the start. The results of this are excellent, in other hands than those of the French, who are the most ardent supporters of the plan of treatment. As the condition improves, starches may be added to the diet, then the proteid vegetables with the vegetable oils and butter. If the improvement is progressive full vegetarian diet with milder fruits, and not more than one egg a day, may be allowed. The first meats eaten should be the white meat fishes, and the white meat of chicken and turkey, but these only when recovery is about complete, and sparingly.

Spices, condiments, tea, coffee, alcoholics, beef, veal, pork, are strictly forbidden. The patient should drink a great deal of water in addition to the milk, and the various mineral waters may be used. Buttermilk is an excellent beverage for pregnant women, as are also matzoon and koumiss.

The emunctories are attended to as follows: Begin with a brisk purge, saline or compound cathartic pill, and keep the bowels open with an aperient salt or water. It is not well to give salines continuously over a long period, they should be varied with the vegetable laxatives, and the writer uses very often a combination of ext. *cascaræ sag. fl.*, tr. *rhei arom.* tr. *nuc. vom.* as a general tonic laxative.

Before going to bed and on arising the patient is instructed to drink one or two glasses of water, salted or sugared to taste; this is both laxative and diuretic.

Diuresis is favored by the ingestion of large amounts of fluids, by buttermilk, the alkaline diaphoretic mixtures, and if necessary by the old well known general emunctory stimulant, calomel, squill and digitalis.

The skin is kept free from chill by

woolen undergarments, even in summer. Eclampsia has occurred after exposure to cold. Excretion by the skin is favored by the hot bath and subsequent rest in bed, and in aggravated cases by the hot wet pack, or the alcohol pack. Patients with weak hearts must be carefully watched during these packs. The writer has had several admonitory experiences with these powerful methods of inducing perspiration. Jaborandi is to be avoided even when the patient is conscious, as it is dangerous, and unnecessary.

A valuable means for starting the kidneys and skin, is the sub-dermal injection of normal saline solution. It is almost never necessary in the simple toxemia of pregnancy, but comes to its greatest usefulness when, owing to threatened or actual eclampsia, it is necessary to start these two functions quickly.

The patient should have a good supply of fresh air, to keep the excretory action of the lungs in play, and she should rest a good part of the day in bed or on the sofa, as exertion throws increased work on the kidneys. In severe cases absolute rest in bed, daily hot packs, exclusive milk diet may have to be ordered. The induction of premature labor, by this, aiming to remove the fundamental cause of the whole trouble, should be held as a powerful curative in reserve.

When treatment carried out in the lines herein laid down has produced insufficient amelioration of the symptoms, if the evidences of renal insufficiency persist or grow worse, and especially if eclampsia is threatening, the pregnancy should be terminated.

The best method is, anesthesia, local asepsis extreme, Barnes' bag in the cervix, repeated if necessary till the pains are inaugurated. One word of admonition, when the eclampsia is threatening or has broken out, every manipulation of the genitals, examination, catheterization, etc., should be done under anesthesia. Barnes especially emphasises this.

After the attack has occurred. The patient now needs the continuous attendance

of her physician, and it is well to have plenty of assistance to divide the responsibility as well as the work which is very often quite onerous.

A. In all cases. (1). Protect the patient from the vehemence of the convulsion. Absolute quiet in bed, surround with pillows, remove false teeth, have a gag near at hand to put between the teeth to avoid injury to the tongue. A clothes pin covered with a soft cloth and placed between the jaws answers very well. The room should be darkened, all noises rigorously excluded, no jarring of the bed, slamming of doors, talking, moving about, etc., and the patient should be disturbed not more than is absolutely essential. These are not minor points, but are important, as convulsions are caused by the slightest external impression or irritation.

(2). Narcotize the woman. The arguments as to the utility and safety of this procedure are not yet closed, but they seem to be tending toward the recognition of its value in the majority of the cases. Give one quarter of a grain of morphine hypodermatically every thirty minutes till 3-4 grain are taken. Give 45 grains of chloral per rectum and repeat in two hours if necessary. Chloroform is now recommended only when one convulsion follows the other in rapid succession. Under the above treatment this will not occur so the writer desires the use of chloroform restricted to anesthesia for operative purposes.

(3). Shall bleeding be practiced? The pendulum is swinging back. In cases where the convulsions recur in spite of the above medication, where the pulse is strong and full, face flushed or even cyanotic, where in short the case may be called sthenic or apoplectic, bleeding will do good. It is not necessary in all cases, but when it is, should be practiced till there is a perceptible effect on the pulse. In cases where the pulse is weak and running or absent, where cyanosis and pallor are combined, where the case is of the asthenic variety, the utility of bleeding is doubtful. Stimulation is indicated, strychnine, nitro-

glycerine, camphorated oil. Where the right heart is engorged and pulmonary edema threatens, bleeding together with powerful cardiac stimulation, may tide the patient over. The pulse here is not the guide. In general it may be said regarding venesection in eclampsia, that it has a place in the treatment and an important place, but that careful discrimination should be used as to the cases in which it is practiced, the amount of blood withdrawn, the period at which it is drawn, and in making deductions regarding the effect.

(4). Aid elimination. The means given previously may be employed adapting them to the conditions present. If the labor is in active progress little can be done with hot packs, nor is it desirable to have the field of operation flooded with fluid feces, the result of croton oil. Diuretics are too slow during active eclampsia. An excellent remedy, applicable at all stages of labor is the subcutaneous injection of normal saline solution. The effect on the kidneys is remarkable. It has been used in combination with venesection, to supply the place of blood withdrawn, and is called sometimes, "washing the blood," theoretically a good procedure. When labor is not in progress, and during the puerperium, all the efficient eliminatory measures may and should be employed.

B. Treatment during pregnancy. In a given case of eclampsia, when labor has not yet begun, try to tide the patient over the present danger by the means just given, and induce labor after the tendency to convulsions is past, or, wait till labor comes on naturally. In the modern trend toward operative measures those successful cases, not few, where expectancy and indication lead to a favorable termination, are being ignored.

Theoretically if one should induce labor when eclampsia is threatening, one should end the pregnancy when it has broken out. Clinically, however, one can often overcome the convulsions, the foetus may die, and be expelled, and what is not so rare,

that it may be ignored, the patient may go on to term and have a living child.

The dangers of injury and shock in the rapid dilatation and emptying of the uterus, and the many irritations to the already overwrought nervous system made by it, may more than outweigh the advantages of the immediate termination of pregnancy. Should medicinal treatment have no effect, the convulsions getting more frequent, longer, harder, or the pulse getting more frequent with a rising temperature, induce labor. Puncture the bag of waters first. In a third of the cases, the convulsions cease, in another third they become less strong, but in the rest they do not improve. Labor usually comes on at once, especially if the fits are violent. They stimulate the uterus, and labor pains are often strong; if necessary to hasten the labor dilate the cervix with Barnes' bags, or the colpeurynter.

C. Treatment during labor. All authors are agreed that during labor one should terminate the process as soon as possible. The greatest differences exist, however, in regard to the amount of force to be employed. Accouchment force should almost never be used. By this is meant the rapid dilatation of the cervix, incising it if necessary, and the immediate extraction of the child.

The writer cannot agree with those who say that it is possible, *safely*, to stretch, tear and cut the cervix open and extract the foetus in thirty minutes to an hour. Unless the upper part of the cervix is effaced, that is, drawn up into the body of the uterus (carrying the circular artery with it) the dangers of rapid dilatation by any of the means employed are great. Laceration of the cervix, even into the peritoneal cavity, hemorrhage, even fatal, later sepsis, have occurred often enough to warn against this procedure.

When the cervix is effaced, and the os begun to dilate, the case has an entirely different aspect, then the dilatation by the hand or incision are comparatively without danger. It must never be forgotten that

stretching cannot replace the natural process of effacement and dilatation, and that it is therefore in the highest degree desirable in cases where operative delivery is to be made, to wait till the cervix is thinned out, that is, shortened and the dilatation at least beginning, before it is attempted. The circular artery is then out of reach and the incisions as given by Dührssen or the lacerations are not so dangerous.

The only means to produce this effacement of the cervix is the uterine action. Stretching from below, or pulling rubber bags through will not do it except inso-much as they produce uterine contractions. In cases therefore where rapid delivery is indicated the writer uses Barnes' bags and the colpeurynter to dilate the cervix as they at the same time evoke pains and hasten the shortening of the cervix. Manual dilatation of the cervix is accomplished by a method similar to that described by Edgar of New York, which the writer has used for five years with success varied by a few failures. The cervix will sometimes tear under the manipulations so that recourse must be had to incisions, or it will not give way to any justifiable force, when the scissors may again be necessary.

The delivery is best accomplished by the forceps. Version is undesirable in eclampsia. If the child is dead, by all means perform craniotomy.

If there are perineal or vaginal tears, repair them; if cervical it is better to leave them alone, unless hemorrhage gives the indication. The delivery of the placenta is as usual, contraction and retraction of the uterus are good, post-partum hemorrhage is not to be feared. Do not tampon the uterus if at all avoidable.

The child is not seldom asphyxiated, it may be narcotized by the drugs given the mother, and it may have convulsions similar to those of the mother.

It is well to remember that in eclampsia labor is usually rapid, and the patient being unconscious the baby may be born unexpectedly under the bedclothes. It is well to leave the case to nature if the labor is

progressing rapidly, and if the convulsions are not too severe, if the color of the patient is not cyanotic, if the pulse is good, the fever not above 102 degrees, and there be no signs of edema pulmonum.

As soon, however, as the cervix is completely dilated there is usually no need to wait longer and the delivery may be completed under chloroform. Only in the gravest emergency should forcible means to empty the uterus be employed. Cæsarean section has no place in the treatment of eclampsia unless the woman is about to die and the child is alive.

From the above it may be seen that the writer leans toward an expectant plan of treatment of eclampsia, but it will be seen also that under proper indications on the part of the mother active, decisive, operative measures are advised.

D. Treatment during the puerperium. Those measures given under heading A., i. e., those appropriate to all cases, come into play here to the fullest extent. The eliminators must be stimulated to the full safe limit. Narcotics must be used more sparingly now, unless the convulsions are very violent, as it seems that they increase and prolong the coma, and lock up the secretions. During the labor where the irritation from the genitals is being kept up, narcotics are necessary, and we must take their bad effects with the good. No drug is an unalloyed good.

Saline solution may be given in large doses, and oxygen, which is supposed to aid elimination by the lungs. The writer has used oxygen in only one case, of puerperal eclampsia, but there was no effect, not even on the cyanosis.

Veratrum viride has been much extolled as a specific for eclampsia, and it did for a time take that part of the place of bleeding that chloroform did not usurp. Now bleeding is taking its place again to the disuse of chloroform, and *veratrum* is being less used than it was. It is said that by this drug the pulse may be kept at 60 and then no convulsions can occur. The writer has had but little recourse to this drug, but in

one case the fits recurred even while it was being pushed to its physiological effect. It may be used alongside of other remedies.

In general the treatment of this grave accident is much the same as the treatment of any other disease, not one drug, or course of procedure, for all cases, but a proper individualization of the cases and a careful application of the method suited to each.

COMPLETE PROLAPSE OF AN OVARIAN TUMOR THROUGH THE ANUS. OPERATION. RECOVERY.

BY J. A. BAUGHMAN, M. D., NEOGA.

The rarity of this case is one of the main reasons for reading a report of it before this assembly:

Mrs. M., aged forty, weight 120 lbs. passed the menopause, and fairly well nourished had for many years been invalided by half concealed symptoms that proved to be due to a prolapsed rectum, which organ protruded to the extent of twelve centimeters. It was found that the three coats of the bowel were included in the protuberance as well as a hard round tumor about five centimeters in diameter, which lay in the anterior fold of the rectal projection or in other words in the greatly enlarged pouch of Douglas. This tumor was freely movable, exquisitely tender, hard and rather smooth. It was attached to a long pedicle that reached up into the pelvis and proved by its proximal attachment to be the ovarian ligament and fallopian tube. The diagnosis prior to the operation was that the tumor was a prolapsed malformed ovary of the right side.

As there were symptoms pointing to a left oöphoritis an ovariectomy was done after the tenets of modern teachers. The left ovary was removed and on the right side what remained of the ovary and what was found to be an ovarian tumor five centimeters in diameter, were excised. We hoped to do a ventro-fixation of the rectum at this time, an operation according to Matthews, which is gaining some favor at

present, but owing to a difficulty with the anesthetic, this was abandoned, and later on the rectum was amputated.

The recovery from the ovariectomy was rapid and uninteresting except that the rectum for some months retained its normal position, perhaps held there by temporary inflammatory adhesions. When these absorbed the bowel again protruded as badly as ever and an amputation of the projecting portion was made. After placing the patient on her back in the lithotomy position and giving the parts in the field of the operation a strictly antiseptic cleansing, the protuberant part of the bowel was grasped by four mouse tooth artery forceps placed equidistant about the corona.

The forceps served as guides as well as retainers in the course of the operation. The incision was first made transversely across the front of the bowel close to the margin of the anus and carried only about half around its circumference at first. Some of the anterior sutures being placed before the entire tube was severed. Not severing it all at one time was a precaution to prevent troublesome retraction of the upper end of the organ. The sutures were of cat gut for the serous coat and silk for the muscular and mucous coats, the interrupted stitch being used.

After having seen profuse hemorrhage in some cases of hemorrhoids our anticipation of severe bleeding in this case was not realized as at no time was a haemostat necessary, other than a rather hot antiseptic solution used in constant irrigation of the parts during the progress of the operation. The recovery was again rapid. Everything in the case was commonplace except the unusual position of the ovarian tumor, a condition calculated to puzzle and afterwards surprise the operator. Possibly the protrusion of the three coats of the rectum is not strictly speaking a commonplace condition as in the vast majority of cases it is only the inner coats of the organ that protrude.

The patient is now ten months after the last operation, a working house keeper enjoying good health.

PROCEEDINGS OF THE STATE BOARD OF HEALTH.

At its meeting in Chicago, July 11, '99, the Board adopted the following sensible resolutions concerning the good standing of medical colleges:

Resolved, That the phrase "medical college or institution in good standing" in the first paragraph of Section 2, of the Act to Regulate the Practice of Medicine in the State of Illinois, in force July 1, 1899, is hereby defined to include only legally organized, properly conducted medical institutions, having a sufficient and competent corps of instructors, and ample facilities for teaching dissections, ambulatory and hospital clinics, which conform to the requirements relative to the preliminary education of matriculates, the course and period of study, the number, character and length of lecture terms, the duration of attendance on hospital and clinical instruction, which obtain in the majority of medical colleges in the United States.

Resolved, That the Illinois State Board of Health, will not consider in good standing, after January 1, 1900, any medical institution which does not require of all students (excepting graduates of reputable colleges of Arts and Sciences, or of reputable colleges of Dentistry, Pharmacy or Veterinary Medicine, to whom one year's advance standing may be granted) as a condition of graduation, an attendance on four full courses of lectures of at least six months each, in four separate years, no two courses commencing or ending in the same calendar year of time.

Resolved, That no medical college issuing a catalogue or announcement in which are contained misrepresentations respecting its teaching, clinical or hospital facilities, its faculty or its courses of study, or false representations as to the number of students matriculated or in attendance, will be regarded as in good standing.

Also this resolution concerning the recognition of medical colleges in Illinois:

WHEREAS, Section 2, of an act to Regu-

late the Practice of Medicine in the State of Illinois, and to repeal an Act named therein, approved April 24, 1899, in force July 1, 1899, gives the State Board of Health discretionary power as to granting certificates without examination to graduates of legally chartered medical colleges in Illinois in good standing as may be determined by the Board, and,

WHEREAS, it is evident, notwithstanding the discretionary power granted to the Board, that the true intent and purpose of this Act is to require all persons to prove their qualifications to the State Board of Health by passing an examination; therefore be it

Resolved, That all applicants for a State Certificate to practice medicine and surgery in the State of Illinois, who are graduates of medical colleges in good standing as may be determined by this Board, shall, before receiving a certificate, be obliged to pass an examination such as contemplated in Section 2, of an Act to Regulate the Practice of Medicine in the State of Illinois, in force July 1, 1899.

The first regular examination of the Illinois State Board of Health under the law in force July 1, 1899, will be held at the Great Northern Hotel, Chicago on August 1st, 2d, 3d, and 4th, 1899.

The following rules were promulgated:

Applicants failing at one examination cannot be re-examined until six months have elapsed.

The filing of an application or the taking of an examination does not entitle the applicant to practice medicine. The only legal right to practice is the possession of a Certificate from the State Board of Health.

By order of the Board.

J. A. Egan, M. D.,
Secretary.

Dr. E. C. Jones has resigned as a member of the Montgomery County Board of Pension Examiners, and J. R. Seymour, of Raymond, has been appointed to fill the vacancy.

The Illinois Medical Journal

PUBLISHED MONTHLY.

Official Organ of the Illinois State Medical Society.

Committee on Publication:

E. W. WEIS, M. D., Chairman, Ottawa.

H. N. MOYER, M. D., Chicago.

G. N. KREIDER, M. D., Springfield.

All communications should be addressed to E. W. WEIS, Secretary, Ottawa, Ill.

All remittances for subscriptions should be sent to Dr. G. N. Kreider, 522 Capitol Ave., Springfield, Ill.

The Society does not assume responsibility for any statements or opinions published in this journal.

Entered at the Postoffice at Springfield, Ill., as second-class matter.

Springfield, Ill., August, 1899.

THE ARRANGEMENT OF THE PROGRAM.

When Pingree was a candidate for governor of Michigan, he was asked regarding his principles. "Principles!" he is said to have replied, "My principles are to give the people what they want." This idea should prevail in the arrangement of our program for the next meeting of the Society. The members should have what they want. They should hear the men they want to hear. They should hear them speak on subjects in which they are interested. The section officers are not figure-heads. They are the servants of the Society, anxious to know and to execute the will of the membership. The members, therefore, should speak up early and often. They should say what they want. In this manner only can be arranged a satisfactory program.

Certain details may be properly considered. The program should not be utilized as a means of advertisement for members who announce a paper and never intend to present it. Such men should be "spotted" and very promptly "turned

down." At the last meeting of the Society an interesting and important feature was inaugurated in Section 11. In many instances an abstract of the paper was published in advance. This feature was introduced at the Columbus meeting of the A. M. A. by one of our members, and was found so desirable that, by resolution, it has now become a requirement in our national body. If a man cannot furnish an abstract of his paper before the program is published, it may be assumed that he has no paper to present, or that it is unworthy of presentation. It is an insult to the intelligence of our membership for any man to presume to speak without adequate preparation.

The program should chiefly be made up of papers of general and practical interest. The specialist may dilate on some moot point of which the average practitioner knows nothing and cares less. It is respectfully submitted that the gentleman's ambition might be gratified and his purpose better subserved by having him properly labeled and put on exhibition with the other exhibits. By this method much valuable time could be saved.

The program should not contain the names of too many Chicago men. Of course every man in Illinois believes in Chicago, but it is not the entire State. The medical men in Chicago have ample opportunity to disport their knowledge. Some of them do not hesitate to do so, almost *ad infinitum* and in some instances *ad nauseam*. They should curb their impetuosity when away from home. They should let the others have a chance. Strange as it may seem, they may learn something if they are attentive.

Here are a few suggestions in reference

to the arrangement of the program. There are others which other members of the Society can offer. Let us have them.

D. L.

JUBILEE MEETING.

The next meeting of this Society to be held in Springfield in 1900, will be the fiftieth anniversary, and therefore the Jubilee Meeting. It is meet and right that this meeting should be held on the spot where it was born, so that the wonderful contrasts in medical society life and in the art of medicine in general, should appear the greater. There are still with us a few of the pioneer physicians of this State who were present at that first meeting in Springfield, and when we know that they had to travel miles and miles, some of them almost across the entire State in buggies or horseback to be present at those first meetings, the contrast of professional enthusiasm and love of the medical art with that of to-day is marked, and the physician of to-day suffers somewhat by the comparison.

* * * * *

It is the desire of the officers to make the next meeting the most memorable in the history of the Society, and to do so, we are anxious to receive suggestions from every member and trust that such will be made. It must be borne in mind, however, that the scientific work of the Society cannot be interfered with and it is hoped that suggestions will be upon this line. The section officers are already actively engaged in the preparation of the program, but as will be seen in the article signed D. L., they desire to know more fully the wishes of the members, and we sincerely trust that every member will consider it his duty to explain his views on the subject. W.

PROFESSIONAL PROGRESS.

Great surgeons existed in all times. They were great in their day. The mechanics, the art of surgery, has made but little progress in a third of a century. Then came modern bacteriology, the culture-plate of Koch and the culture-tube of Esmarch, the process of staining bacteria, and improvements in the microscope. Following these came the anti-septic methods, then, later, the aseptic *technique*. Add to these the hæmostatic forceps and the educated nurse and we have the crowning achievement of the century—the surgery of to-day. All this did not spring up in a night. It is the outgrowth of infinite labor, of tireless research, of master minds.

* * * * *

The Post-Graduate School has come to stay, because it fills "the long-felt want." Its usefulness begins where that of the College leaves off; it ends only with the ending of all earthly things. It infuses new life into the wearied practitioner, lifts him out of the rut, holds him in touch with the advancements in medicine all along the line, and with the best thought and best practice of the day. It keeps him truly abreast of the times. For every medical college there should be a post-graduate school, and its seats should always be filled. Laziness and its twinship, indifference, have no place where enlightened conscience is astir.

H.

Chief Surgeon M. H. Crawford, United States Navy, examining surgeon at the recruiting office in the Masonic Temple, Chicago, and chief surgeon on the Boston at the battle of Manila, received recently one of the medals ordered by Congress for every man who fought under Dewey. On one side is a bas relief of Admiral Dewey, on the other an inscription.

TRANSACTIONS OF
THE ILLINOIS STATE MEDICAL
SOCIETY.

PROCEEDINGS OF THE FORTY-NINTH
ANNUAL MEETING
HELD AT
CAIRO, ILLINOIS, MAY 16, 17 AND 18, 1898.

SECOND DAY—MORNING SESSION.

The Society met at 8:30 A. M., and was called to order by the President.

The President: We will now listen to the report of the Committee on Publication, which will be read by the Secretary.

The Secretary read the report, as follows:

REPORT OF THE COMMITTEE ON PUBLICATION.
To the President and Members of the Illinois State Medical Society:

Your committee has the honor to report that it awarded the contract for printing six hundred (600) copies of the last annual volume of the Transactions to the lowest of four (4) bidders, the Ottawa Free Trader Printing House at a net price of \$725.13.

Four hundred ninety-seven volumes were delivered to members by mail and express; twenty volumes to the libraries of the various public institutions of the state and exchanges with other state medical societies.

A copy of the official program was sent to every member of the society and to the various medical publications of the state and St. Louis.

Pursuant to an order of the executive committee there were printed and mailed to the physicians of the state eight thousand (8,000) preliminary programs. An accompanying letter earnestly urged their affiliation with our society.

Again is your committee pleased to report that the Transactions were issued by August 1st although the book contained 130 pages more than that of the previous year.

The chairman begs to state that owing to the fact that the legislature had before it some bills that the committee on legisla-

tion could not see to, he with the President took it upon themselves to urge proper action. This involved considerable correspondence which we think gave very satisfactory results.

The President: You have heard the report. If there is no objection, it will be adopted.

The President: We will listen to the report of the Committee on Medical Societies, Dr. C. W. Hall, of Kewanee, Chairman. Dr Hall read the following:

REPORT OF THE COMMITTEE ON MEDICAL
SOCIETIES.

Mr. President and Members of the Illinois State Medical Society: Your Committee on Medical Societies has done little or nothing in the matter of organizing new societies this year. A careful survey of the field convinces us that better work could be done this year through societies already existing than could be done by organizing new ones. While we cannot demonstrate our work as well as we did last year, we, as a Committee, feel that our efforts have not been fruitless.

A few more societies should be organized, but the time apparently is not ripe now. Sincere efforts have been made, but no organizations perfected. We still need a society in the extreme Northwest, one in or near Iroquois County, and three or four county societies in the Southern portion. We are quite well supplied with societies, as a glance at the accompanying map will show. The circle represents county societies, the triangle, the district, and the square, city societies. The district societies fortunately are situated so as to compensate for the loss of county societies. In several instances a district society covers a territory better than several county societies on account of the direction of the railroads.

As before stated, our main work has been with existing societies. All have been corresponded with and some visited. We are glad to state that generally the organizations are in healthful condition. We find that most of them still consider the scientific part of the programs, the most vital part, yet we are obliged to state, in a few

instances the social part is more prominent. In the latter class, as one of my colleagues says, "They turn out better to a funeral than they do to a meeting." It is not the purpose of this report to specify any societies in either class, but to give facts.

Our correspondence has been most interesting and reveals a regard for the minor organizations which is not approached in this organization. They seem to regard the local societies as more practical. This probably is not true, but greater freedom exists in discussion and presentation of ideas and the rank and file go away satisfied. We have 48 county societies, 16 district, and 22 city societies, distributed quite evenly over our State. As near as we can estimate, about 4,000 of the regular physicians of the State belong to some medical organization. This number is still far short of what it should be, and we feel that the matter of increase lies with the local societies rather than with this Society or any of its Committees. We recommend that each local society appoint a Committee on membership whose duty will be to secure as members all reputable regular physicians residing in their district. Many societies have such a Committee.

Another matter which directly concerns this Committee is the success of each meeting in getting out the members. We learn that those societies which meet the most often complain the most of small attendance. This does not apply to city societies. In other words, the county societies, which meet annually or semi-annually, report the best meetings. We have advised societies that meet often with poor attendance, to have fewer meetings, for one or two good meetings a year are better than six poor meetings. Most of us belong to other societies than our County Society, and with one or two county meetings, our district and State meetings, we have attended about as many annual meetings as we can.

At the next Annual meeting, the Fiftieth Anniversary of the formation of this Society will be celebrated. At that meeting it is to be hoped a report can be presented from this Committee; that the med-

ical profession of the State of Illinois has been so completely organized that no more could be desired in the matter of societies, and that a large number of physicians may be added to the list of members. Let us hope for a report that will be befitting our fiftieth birthday.

To the list of affiliated societies should be added the following:

The Chicago Pediatric Society (organized this year),

The Chicago Laryngological Society,
County Hospital Alumni Society,
North Chicago Medical Society,
Chicago Therapeutic Society.

The President: You have heard the report of the Committee on Medical Societies. What disposition will you make of it?

Dr. C. W. Hall: I desire to present a matter to the Society before this report is adopted or finally disposed of. Some action should be taken out of respect to the society I am about to mention. I have here a request from the students of the College of Physicians and Surgeons of Chicago wanting to affiliate with the Illinois State Medical Society. As I understand it, the real motive is to affiliate with the American Medical Association. It might be well to mention that this society consists mostly of under-graduates. I will read Article 3 from their By-Laws, with reference to members, so that you can get an idea of what this Society consists. (Read extract from By-Laws.)

According to our Constitution, they cannot affiliate with us, as I interpret the Constitution, and they must, therefore, be members of the regular medical profession. Yet I feel, Mr. President, that we ought to pay some attention to this request. I move, therefore, that we invite this Society to comply with our Constitution, and then we will be pleased to affiliate with them. Seconded.

Dr. O. B. Will: I do not quite understand what they mean by affiliation. We have no provision for any sort of affiliation that I know of except to become actual members of this organization, complying with all the requirements.

The President: That is all we can do in the matter.

The report with the motion was adopted.

The Secretary: While we are considering the subject of medical societies, I wish to bring up another matter. Section 1, Article 3, of the Constitution, reads: "All regular resident members of the County and District Medical Societies within the State, organized in harmony with the spirit and objects of this Society, are eligible to membership." It does not say anything about any other societies than County and District, and I desire to give notice to an amendment to the Constitution next year so as to include City societies.

Dr. Kreider offered the following Proposed Amendments to Article III of the Constitution.

Section 8. Associate members shall be those members of the medical profession who are not members of a regular county, district or city medical societies within this State, but who are in good standing in the community in which they reside, and wish to endorse the objects of the society and subscribe for its publications. Their names and qualifications for Associate membership shall be submitted by the Registration Committee to the Judicial Council before they are placed on the list of Associate members.

Section 9. Corresponding members shall be distinguished members of the medical profession residing in other States of the Union, territories, island possessions or foreign countries who shall be deemed worthy of the honor. They shall be furnished with a diploma of their membership and entitled to the publications of the Society at one-half the usual price.

The Secretary read telegrams from the secretaries of the Missouri State Medical Association and the Iowa State Medical Society, extending cordial greetings.

On motion, the Secretary was instructed to reciprocate these greetings by telegrams.

The report of the Treasurer was called for, and was read by Dr. Kreider, as follows:

TREASURER'S REPORT.

Dr. George N. Kreider, Treasurer, in account with the Illinois State Medical Society for the year 1898.

Dr.

To cash on hand May 16, 1898..	\$910 71
Receipted as per Book No. 1....	282 00
Receipted as per Book No. 2....	318 00
Receipted as per Book No. 3....	111 00
Receipted as per Book No. 4....	300 00
Receipted as per Book No. 5....	300 00
Receipted as per Book No. 6....	144 00

Total receipts\$2365 71

Cr.

Vou. No. 1, printing and expressage, Drs. Pettit and Weis...	\$32 96
Vou. No. 2, clerk at Galesburg meeting	6 00
Vou. No. 3, printing for Galesburg meeting	6 00
Vou. No. 4, printing for Secretary	15 00
Vou. No. 5, Whitford, stenographer	115 60
Vou. No. 6, Dr. Cowan, expenses Galesburg meeting	38 00
Vou. No. 7, Treasurer, services.	50 00
Vou. No. 8, printing transactions, on account	200 00
Vou. No. 9, printing transactions, and Pettit	300 30
Vou. No. 10, printing transactions (total \$725.13) and job work	332 03
Vou. No. 11, expressage, etc...	95 77
Vou. 12, Secretary, services...	200 00
Vou. 13, printing for committees	3 00
Vou. No. 14, J. W. Pettit, legislative committee	150 00
Vou. No. 15, W. B. Ridgely, postmaster, Treasurer's stamps	15 00
Vou. No. 16, printing, expressage, etc... ..	77 63
Vou. No. 17, Illinois State Journal, Treasurer's printing	8 77

Total expended by vouchers.\$1646 06

Certified certificate to balance 719 65

\$2365 71

Approved May 17, 1899.

J. T. McANALLY,

O. B. WILL (acting pro tem.)
Auditing Committee.

I might say in addition, that there is to come out of this unexpended balance \$50 for the Legislative Committee. This, for the first time since I have held the position of Treasurer, scrapes the bottom of the Treasury. This amount of money, as you all know, has been well expended, and we are none the poorer for having spent it in securing some legislation which has been accomplished during the past year. In the absence of Dr. Moyer, I will ask the President to appoint some one in his place.

The President: I will appoint Dr. O. B. Will on the Auditing Committee.

The Treasurer's report was then referred to the Auditing Committee.

The President: We will now hear the report of the Committee on Medical Legislation, Dr. J. W. Pettit, of Ottawa, Chairman.

REPORT OF THE COMMITTEE ON MEDICAL LEGISLATION.

Your Committee on Medical Legislation beg leave to report as follows: After three years' strenuous effort your committee, assisted by the profession and the regularly organized medical societies, have succeeded in placing among the statutes of this State a medical practice act which is regarded by them as a distinct advance over all previous efforts in medical legislation. While the law as finally passed was not all that could be desired by the profession, it is still such a marked improvement upon the present most defective act that your committee feel that the public is to be congratulated upon having a law which will go far to remedy some of the grosser evils incident to organized charlatanry and illegal practice which have grown to such enormous proportions of late years. We feel sure that the practical physicians throughout the

State, who are not aiming for the ideal and the impossible, will see in the new statute a distinct advance over former legislative efforts to raise the standard of professional requirements.

Immediately after the close of the last annual meeting, your committee as then constituted, organized and began perfecting a working plan by which the profession as a whole could bring its influence to bear in furthering medical legislation. At the outset, they were agreed upon one proposition, namely, that however defective legislation that was secured might be, the chief aim should be to separate the license from the degree, as this was regarded the foundation for any improvement in the medical practice act. A sub-committee was formed which co-operated with representatives of the Homeopathic and Eclectic practitioners. Your committee finally drew a bill which was submitted to various medical organizations and after meeting with their approval was finally introduced early in the last session of the legislature. Early in the session, it became apparent that two provisions in the bill, to-wit, the creation of a new Board and an annual renewal of the license, if insisted upon, would result in the whole matter being laid upon the table, thus defeating all legislation for the next two years. In addition to these, there were several minor points in the bill, while not material, it was feared might seriously impede the progress of the act through the legislature. Accordingly, a new bill was drawn which was substituted for the original measure. Your committee have been charged with acting in bad faith in substituting a bill for the one which was agreed upon by the joint committee of the various societies having the matter in charge. These charges, when traced to their source, are found to originate in a following which is hostile to any medical legislation, having for its object the elevation of the standard of professional requirements. The reading of some of the criticisms levelled at your committee would lead one to think that it was the committee who enacted

medical practice acts and not the legislature. Superfluous as it may seem, we venture to remind the Society and the profession that it is the legislature of Illinois that passes laws, and a bill once introduced and referred to a committee is out of the hands of those who have prepared it and urged its adoption. It is then subject to amendment or change of any kind, and no committee can go before a legislative body to initiate legislation, that will know beforehand just how they will come out. The bill as framed by the enlarged committee was introduced exactly as agreed upon, although no representative of the Homeopathic or Eclectic committees was present either then or at any stage of its progress.

The bill as finally passed contained all of the essential provisions of the original, with the exception of the creation of an examining board and the renewal clause. The demands upon the legislature for the creation of new boards were so numerous and many of them so absurd, as to bring the whole system into disrepute, and it was thought by your committee that to insist upon the adoption of this clause would simply secure nothing at this session of the legislature. A practical solution was found by placing the licensing power in the hands of the State Board of Health, where it has been for nearly a quarter of a century. The effect of the new law in that respect is only to strengthen the hands of the Board and to arm them with some real power which was supposed to reside in the old medical practice act, and which has been eliminated by numerous adverse judicial decisions.

The renewal clause was regarded by your committee as the most effective portion of the proposed act, but as its force was not clearly apprehended, it was opposed by so many in the profession that it was necessary to eliminate it from the bill. It was with reluctance that your committee consented to this change, as it is believed by them that no legislation which will deal effectively with fraudulent practice or overcome illegal registration can be enacted, without some such clause. While it

burdens the profession with an annual duty and places a small annual tax upon each of us, yet its benefit to the people would have been so considerable and its effect so salutary in raising the standard of medical practice, that it was thought we could well afford the sacrifice.

Your committee is convinced that the passage of an adequate medical practice act is scarcely to be accomplished at a single session of the legislature, but the agitation must be continued a number of years. It will be easier to amend the existing statute than to pass a bill *de novo*. Taken as a basis for future amendment, the present law is an admirable one, and with the addition of one or two sections and a few minor clauses, it will become one of the best medical practice acts in the United States. The administration of the present law is in the hands of the State Board of Health, and much depends upon the personnel of that body. We earnestly recommend that this Society take some action which shall aid the Executive in properly filling vacancies in the Board. If medical societies will but manifest more interest in medical appointments, it would be better for the public at large, and the profession would not so frequently complain of inadequate representation in medical bodies.

Finally, your committee would especially urge that the organization of the profession, accomplished at so great an expense of time and effort, should be maintained and perfected to the end that some amendments may be incorporated in the present medical practice act, and that a special board of examiners should be secured to enforce its provisions, thus leaving the State Board of Health free to attend to much needed State sanitary work.

All of which is respectfully submitted.

J. W. PETTIT,

HAROLD N. MOYER,

GEORGE N. KREIDER.

Committee on Medical Legislation.

On motion of Dr. Sudduth, the report was adopted.

[CONTINUED NEXT MONTH.]

Correspondence.

To the Editor:

The quackish interests of the state evidently think they are hit hard by the new Medical Practice Act. The irrepressible and irresponsible "Dr." T. A. Bland, from nowhere in particular, a leading light in the Independent Medical College of Chicago, which under various aliases has been selling diplomas and whose business is now seriously threatened, is attempting to organize the quacks of the state to test the constitutionality of the Medical Practice act now in force. He has issued a letter under date of July 15th, to the profession in which he sets forth that the present bill became a law through chicanery and fraud. It would seem superfluous to pay any attention to the opposition of men of this ilk, but when it is stated that by similar means he succeeded in duping hundreds of reputable physicians last winter, it may not seem unnecessary to warn the profession to pay no attention to anything that may emanate from that source. Every statement made in the circular sent out is untrue and his object is to mislead and confuse the better element of the profession. The fact that the law is attacked by men of this class should be regarded as the strongest argument in its favor. Medical journals circulating in this state should give this matter wide publicity.

J. W. Pettit,

Ch'm. Leg. Com. Ill. State Medical Society.

Editor of Journal:

I have been informed that there is a report in circulation that I signed a petition asking Dr. Egan not to prosecute the Magnetic healers who are holding forth here. To my knowledge such a petition was never circulated, at least I never saw one of that character; but I, with several other physicians here did sign a petition about the first of June asking Dr. Egan, in view of the new law allowing them to practice

the first of July, to grant them a permit to practice until such time as could be set for their examination in compliance with the law. It being understood that they were to comply with the law as soon as it became effective.

I know of no better way to kill such fellows than to let them go ahead and kill themselves which they do in a very short time if we do not fight them and thereby furnish them free advertisement. If we go fighting them, they stand out before the public as martyrs to some great cause, and there are always lots of seemingly intelligent people who are ready to pick up with any fake that comes along, in fact they will go out of their way and put themselves to considerable trouble for the privilege of being thoroughly humbugged. They are not satisfied with anything practical, but want something mysterious that has no semblance of reason or common sense to it. They are the class of people that make it possible for these irregulars and quacks, Christian scientists, osteopaths, magnetic healers and all of that line of frauds to make a living, and if you attack their pets, they flare up and advertise and publish it as being one of the greatest institutions of the civilized world. Yet if you let them alone, treat the whole thing with silent contempt, let the public feel that such things do not molest you or in any way interfere with your work, they die a natural death in from three to six months and nobody is the loser except the set of fanatics that are determined to be humbugged some way or other.

The magnetic healing had about run its course here and was fast dying until the state board notified them that they must stop. Immediately that was published and heralded everywhere and they stood out as martyrs in a great cause and the public began to clamor for their services, and was blaming the medical profession for the great injustice that had been done this most wonderful discovery of the latter part of the 19th century.

It's not the ignorant class of people that

are imposed upon by these quacks but men high up in public life and people that ought to have more sense, but don't see fit to use it in the proper channel if they have it. It seems impossible to pass a law to shut them out, so long as people are hunting a chance to be gulled. They want it and are going to have it in some way and will fight all legislation against it, so I must say I am at a loss to know of any way to get rid of such things so quickly as to let them die a natural death. Not that I haven't the greatest respect for the regular medical profession, its workings, laws and teachings and believe in strict requirements of all persons entering it. But I have seen the course that Christian science, osteopathy and two or three more such fads have run in this town and neighborhood and when no attention was paid to them they quickly died out, but if we attempted to prosecute and stop them by legal method, it only made the matter worse and gave them a longer lease of life. Especially is this the case when it is done by one of the citizens of the town or where they bring some church or other society into direct connection with it as has been frequently done here. I think this thing will be dead, buried and forgotten inside of six months if we let it alone and don't furnish them free advertisement by jumping on them.

Respectfully,

W. J. Eddy.

Shelbyville, Ill.

State Items.

Dr. Gilliett has located at Allendale.

Dr. John J. Taylor, of Streator, writes from Morrison, Col., that he is rapidly improving in health.

Dr. B. H. Bean, of Cherry Valley, well known in Northern Illinois, committed suicide by taking poison.

Dr. Robert Laughlin Rea, a retired prac-

itioner, died in Chicago July the 11th. Dr. Rea was at one time professor of anatomy in Rush Medical College, and in 1888 accepted the chair of surgery in the College of P. & S., from which he retired four years later.

Dr. and Mrs. Chas. E. Cook and their two sons, after a sojourn in Germany, are enjoying a tour in the Land of the Midnight sun. They will visit Switzerland and Paris before returning to their home in September. The Doctor is an active practitioner and member of the firm of E. P. and C. E. Cook, of Mendota.

It is with sorrow that we report the death of Dr. O. B. Ormsby, of Murphysboro. The members who attended the East St. Louis meeting will remember the doctor, as he took a very active part in the proceedings; especially will they recall his poetic effusion on "Malaria." The biography of the doctor will appear later.

Dr. J. W. Pettit, of Ottawa, who is delegated by this Society to arrange the excursion to the International Medical Congress to be held in Paris next year, informed us that he has now listed 160 physicians and their friends who have signified their intention of availing themselves of the opportunities offered for making an economical and delightful trip. He has partially arranged for an excursion in four sections, the time of each section varying from 38 to 45 days, prices ranging from \$225 to \$290, including every item of necessary expense from date of sailing from New York to return.

Persons joining this excursion will be entirely free from all responsibility for their comfort and safety. An experienced conductor will accompany each party, who will give all desired information as to places visited, look after the details of transportation, baggage, etc. Those desiring further information should address the Doctor.

Chicago News Items.

Dr. D. A. K. Steele is spending the summer in Europe.

Dr. E. W. Andrews has gone to Europe for three months.

Dr. F. Kreissl, of Chicago, sailed the 22d ult. for Europe.

Dr. D. R. Brower and Dr. N. Senn will spend the summer vacation in Hawaii.

Dr. W. A. Pusey left for Europe the first of July to be gone until the first of November.

Dr. William Lincoln Ballenger has resigned his position as professor of Otology in the Chicago Eye, Ear, Nose and Throat College.

Mrs. Mary Miller, an illegal "healer" of the Christian Science order, recently undertook to pray away an injury of the foot. The "claim" was too strong for her faith, however, and the patient, a twelve-year-old girl, conceived the idea of gangrene, which belief she communicated to a surgeon, who was finally called in and who amputated the leg. The woman accepted \$51 for her divine offices. She was tried a few days ago before Judges Fitzgerald, Keady and Fleming in the court of special sessions in Brooklyn, was found guilty on the technical charge of practicing medicine without a license, and was sentenced to five months' imprisonment in the Kings County penitentiary.—*Record*.

Since July 1st the following members have paid dues:

H. R. Guthrie, Spar'a.
C. M. Bowcock, Springfield.
R. D. Berry, Springfield.
S. C. Stanton, Chicago.
H. B. Buck, Springfield.

Hattie M. Owens, Princeton.
E. H. Butterfield, Ottawa.
B. M. Stephenson, Peoria.
Anna M. Braunsworth, Chicago.
J. F. Myers, Rock Island.
W. H. O'Malley, Kinsman.
E. L. Mayo, DeKalb.
W. R. Tyler, San Jose.
G. M. Peairs, Joliet.
J. W. Newcomer, Petersburg.
I. Newcomer, Petersburg.
State Board of Health, Springfield.
C. Du Hadway, Jerseyville.
T. W. Burrows, Ottawa.
W. F. Waugh, Chicago.
R. J. Mitchell, Girard.
A. F. Lemke, Chicago.
W. M. Staples, Grove City.
J. M. Wilcox, Clinton.
Stuart Johnstone, Chicago.

Ralph S. Porter, late assistant surgeon Second Illinois Volunteers, has been appointed assistant surgeon with rank of first lieutenant, and assigned to the Thirty-first Regiment at Ft. Thomas, Ky.

PRURITUS VULVÆ.

Dr. E. T. Beall (*Texas Medical News*) gives the following formula and says it has served him well in many cases in which measures suggested by other writers have failed:

R Quinine sulphate	20 gr.
Menthol	8 gr.
Carbolic acid	24 gr.
Citrine ointment	60 gr.
Ichthyol	150 gr.
Lanolin	360 gr.
Castor oil	600 gr.

M. To be applied freely after ablation of the vagina and vulva with hot water.

The first number of the *Illinois Medical Journal*, the new official organ of the Illinois State Medical Society, has been received. It is well printed, well edited, clear and attractive, and reflects credit on the Society and especially on the committee on publication.—*Journal A. M. A.*

County and District Societies.

JUNE MEETING OF THE MORGAN COUNTY SOCIETY.

[Abstracted from the June Journal of the Society.]

The meeting in Jacksonville was called to order by Pres. L. J. Harvey.

On motion of Dr. F. P. Norbury it was unanimously agreed to instruct the secretary to apply for membership in the American Medical Editors Association.

Members present: C. M. Vertrees, Murrayville; L. J. Harvey, Griggsville; R. H. Main, Barry; P. F. Gillett, Chicago; A. L. Adams, Josephine Milligan, F. P. Norbury, J. W. Hairgrove, Ralph B. Scott, A. F. Burnham, T. J. Pitner and Carl E. Black of Jacksonville.

Visitors: Helen M. Duncan, John Caldwell, G. F. Bechdolt and George Dinsmore of Jacksonville.

Applications for membership were received from Wm. G. Maness, of Nortonville; Helen M. Duncan, of Jacksonville; David W. Reid of Jacksonville; G. W. Bradley, of Waverly.

REPORTS OF CASES.

Dr. J. W. Hairgrove exhibited a patient, a boy ten years old, who had sustained a compound fracture of the radius, in which a fragment over three inches long and stripped of its periosteum had to be removed. The patient seemed to be making good progress. He also reported two cases of operation for gall stones, with exhibition of specimens. One of the cases in which the gall bladder was very much indurated and packed with stones was interesting, from the fact that there had never been symptoms calling attention to the gall bladder, and the operation was made as an exploration.

Dr. F. P. Norbury reported a case of paralysis in a child.

Dr. A. L. Adams reported a case of operation on a girl 21 years old at the Institution for the Blind who had never been able to see, in which, after the formation of an

artificial pupil, considerable vision was restored.

The interesting feature of the case was the impressions that were carried to her by means of the sense of sight. All things seemed much larger to her as seen than they really were. She also had no idea of distance, as made evident by reaching to touch a table that stood across the room.

Dr. R. H. Main, of Barry, reported case of a patient, aged 30 years, with ischio-rectal abscess. After incising freely and draining, a probe introduced to near the tip of the coccyx, discovered a foreign body, which, on removal, proved to be a mass of matted hair, a dermoid. He also reported a case of sudden death in a child, aged five years, which had had diphtheria, but in which there seemed to be no organic disease to explain the demise.

Dr. Carl E. Black read a communication on the paying of medical commissions. This practice was strongly condemned by the writer and several members speaking on the subject.

Dr. F. P. Norbury reported the meeting of the American Medical Association.

Dr. T. J. Pitner spoke of the meeting of the Illinois State Medical Society at Cairo, which was very successful and enjoyable. The meeting was well attended in general, but the attendance from the southern part of the state was not what had been expected nor did the practitioners in the southern part of the state respond with papers and communications as was hoped when it was decided to take the meeting to that city.

Dr. Carl E. Black reported briefly on the surgical and gynecological sections of the American Medical Association at Columbus, saying that it was surprising what a large proportion of papers dealt with affections involving the peritoneum from disorders in the pelvic and abdominal cavity. Undoubtedly the great advance of surgery at the present time is along these lines. These sections were always well attended and presented a large amount of interesting material. One feature of the American Medical Association is the free and ex-

haustive discussion indulged in by members.

Society adourned.

Carl E. Black,
Secretary.

BRAINARD DISTRICT SOCIETY.

The last regular meeting was held at Havana on April 27, 1899.

The following members were present: Drs. Coppel, Servoss, Diefenbacher and Hopping, of Havana; Katherine Miller and Barnett, of Lincoln; Cargill, of Mason City; Murphy, of Manito; Mudd, of Athens; Hurst, of Greenview; Hole, of Tallula, and Carl E. Black, of Jacksonville.

Papers were read by Drs. Hole, Servoss and Black.

A number of interesting cases were reported.

This being the time for election of officers, Dr. Coppel was elected president and the other officers were re-elected for the ensuing year.

ABOUT THE JOURNAL.

The committee on publication beg to return thanks to the many members of the society and profession who have expressed entire satisfaction with the appearance and contents of the July issue. Already the Journal is accomplishing the objects for which it was instituted. Old members are renewing their allegiance and new names are being daily added to the list of members. Every physician receiving this number may become a member by simply forwarding \$3.00 to the treasurer, Dr. Geo. N. Kreider, Springfield. The society needs your help, brother, and you need the help and fellowship of the society.

Do not delay sending in your name and dues, but attend to this at once. Hereafter the treasurer will acknowledge receipt of money in the columns of the Journal only.

MEDICAL SOCIETIES.

STATE BOARD OF HEALTH.

C. B. Johnson, M. D., Champaign, President.

J. C. Sullivan, M. D., Cairo.

R. F. Bennett, M. D., Litchfield, Treasurer.

L. Adelsberger, M. D., Waterloo.

Florence W. Hunt, M. D., Chicago.

P. H. Wessel, M. D., Moline.

M. Meyerovitz, M. D., Chicago.

J. A. Egan, M. D., Springfield, Secretary and Executive Officer.

AESCULAPIAN SOCIETY OF THE WABASH VALLEY.

President, J. D. Mandeville, Philo.

Vice President, J. P. Worrell, Terre Haute, Ind.

Secretary and Treasurer, H. McKennan, Paris.

Chairman of Section One, L. J. Weir, West York.

Chairman of Section Two, J. C. Dodds, Tolono.

Chairman of Section Three, Z. T. Baum, Paris.

The next meeting will be held at Paris, Oct. 26, 1899.

BRAINARD DISTRICT MEDICAL SOCIETY.

President, Dr. F. M. Coppel, Havana.

Vice President, Dr. J. A. Barnett, Lincoln.

Secretary, Dr. Katharine Miller, Lincoln.

Treasurer, Dr. Charles C. Reed, Lincoln.

Meetings held the fourth Thursday of January, April, July and October. Next meeting at Mason City.

BUREAU COUNTY MEDICAL SOCIETY.

President, Dr. F. C. Robinson, Wyanet.

First Vice President, Dr. S. W. Hopkins, Walnut.

Second Vice President, Dr. B. F. Landis, Tiskilwa.

Second Treasurer, Dr. E. A. Owens, Princeton.

Meet second Thursday of November and May.

CHAMPAIGN COUNTY MEDICAL SOCIETY.

President, Dr. W. F. Burres, Sidney.

Vice President, Dr. J. C. Dodds, Tolono.

Secretary and Treasurer, Dr. John Laughlin, Rantoul.

Meets monthly at Champaign.

CHICAGO MEDICAL SOCIETY.

President, J. C. Hoag.

First Vice President, H. B. Favill.

Second Vice President, H. T. Patrick.

Treasurer, S. C. Plummer.

Secretary, A. R. Edwards.

CHICAGO PATHOLOGICAL SOCIETY.

President, Dr. Ludvig Hektoen.

Vice President, Dr. Emil Ries.

Treasurer, Dr. F. B. Earle.

Secretary, Dr. George H. Weaver.

CRAWFORD COUNTY MEDICAL SOCIETY.

President, Dr. W. H. Hoskinson, Trimble.

Vice President, Dr. C. H. Voorhees, Hutsonville.

Treasurer, Dr. C. Barlow, Robinson.

Secretary, John Weir, West Union.

Meetings second Thursday in July, September, November, January, March and May.

DE WITT COUNTY MEDICAL SOCIETY.

President, D. W. Edmiston, M. D., Clinton.

Secretary, John A. Tyler, M. D., Clinton.

Censors, J. M. Wilcox, M. D., Clinton; A. L. Morris, M. D., Farmer City; A. E. Campbell, M. D., Clinton.

Quarterly meetings second Tuesday in January, April, July, October.

DISTRICT MEDICAL SOCIETY OF CENTRAL ILLINOIS.

President, Dr. Baxter Haynes, Hurricane.

First Vice President, Dr. M. W. Staples, Grove City.

Second Vice President, Dr. T. J. L. Catherwood, Shelbyville.

Secretary, Dr. J. N. Nelms, Taylorville.

Meets on last Tuesday in April and October at Pana.

GALVA DISTRICT MEDICAL SOCIETY.

President, W. A. Grove, Galva.

Vice President, M. T. Ward, Toulon.

Secretary and Treasurer, C. W. Hall, Kewanee.

Board of Census, F. A. Guthrie, Aledo; S. Thompson, Galva; H. N. Heffin, Kewanee.

Meets annually at Galva the first Tuesday of May.

HANCOCK COUNTY MEDICAL SOCIETY.

President, William Boaz, Carthage.

Secretary, R. L. Casburn, Carthage.

Treasurer, Jas. H. Callahan, Carthage.

LASALLE COUNTY MEDICAL SOCIETY.

President, William G. Putney, Serena.

Vice President, G. A. Dicus, Streator.

Secretary-Treasurer, E. H. Butterfield.

Meets annually.

MACOUPIN COUNTY MEDICAL SOCIETY.

President, J. S. Collins, Carlinville.

Vice President, F. C. Barto, Plainview.

Secretary, J. P. Matthews, Carlinville.

Meetings semi-annually, third Tuesday in April and October.

MORGAN COUNTY MEDICAL SOCIETY.

President, Dr. L. J. Harvey, Griggsville.

Vice President, Dr. J. W. Hairgrove, Jacksonville.

Treasurer, Dr. E. F. Baker, Jacksonville.

Secretary, Dr. Carl E. Black, Jacksonville.

Librarian, Dr. H. C. Campbell, Jacksonville.

Meetings held the second Tuesday of each month in Jacksonville.

NORTH CENTRAL ILLINOIS MEDICAL ASSOCIATION.

President, Dr. James Tweddale, Washburn.

First Vice President, Dr. L. G. Thompson, Lacon.

Treasurer and Secretary, Dr. William O. Ensign, Rutland.

Second Vice President, Dr. F. C. Robinson, Wyand.

Assistant Secretary, Dr. G. A. Dicus, Streator.

Meets first Tuesday in December annually. Next place of meeting, Mendota.

NORTH CHICAGO MEDICAL SOCIETY.

President, Dr. Carl Wagner.

Vice President, Dr. A. Belcham Keyes.

Secretary and Treasurer, Dr. John N. Washington.

Meetings on the first and third Mondays of every month.

OTTAWA CITY MEDICAL SOCIETY.

President, Dr. J. C. Hatheway.

Vice President, Dr. E. H. Butterfield.

Secretary, Dr. William A. Pike.

Meets monthly.

PEORIA CITY MEDICAL SOCIETY.

President, Dr. Wm. T. Sloan, Peoria.

Secretary, Dr. H. M. Sedgewick, Peoria.

The next meeting of the society will be September next, and after that it will be continued monthly, as usual.

SHELBY COUNTY MEDICAL SOCIETY.

President, Dr. Wm. J. Eddy, Shelbyville.

Secretary, Dr. A. G. Mizell, Shelbyville.

Meets annually.

SOUTHERN ILLINOIS MEDICAL ASSOCIATION.

President, J. O. DeCourcy, M. D., E. St. Louis.

Secretary, C. G. Rayhill, M. D., Belleville.

Assistant Secretary, J. I. Hale, M. D., Alto Pass.

Treasurer, H. L. Gault, M. D., Sparta.

Meetings semi-annually.

THE CHICAGO ORTHOPEDIC SOCIETY.

Secretary, Dr. F. S. Coolidge.

The society meets monthly.

THE FOX RIVER VALLEY MEDICAL ASSOCIATION.

President, Dr. C. L. Smith, Aurora.

Vice President, Dr. J. E. Bumstead, Dundee.

Secretary-Treasurer, Dr. M. M. Robbins, Aurora.

Meets in May at Elgin and in November at Aurora.

THE PHYSICIAN'S CLUB, CHICAGO.

President, Dr. Wm. Allen Pusey.

Treasurer, Dr. L. Harrison Mettler.

Secretary, Dr. Wm. H. Wilder.

THE WINNEBAGO COUNTY MEDICAL SOCIETY.

President, Dr. George L. Winn, Rockford.

Vice President, Dr. T. N. Miller, Rockford.

Secretary and Treasurer, Dr. J. E. Allaben, Rockford.

Annual meeting on the second Tuesday of January of each year and other meetings monthly. All meetings held at Rockford.

TRI-COUNTY MEDICAL SOCIETY.

President, Dr. M. S. Brown, Danville.

Vice President, Dr. B. S. Euans, Watseka.

Secretary-Treasurer, Dr. Leroy Jones, Hoopston.

Meets first Tuesday in June and December.

WARREN COUNTY MEDICAL SOCIETY.

President, Dr. E. J. Blair, Monmouth.

First Vice President, Dr. E. L. Mitchell, Roseville.

Second Vice President, Dr. J. W. Standley, Alexis.

Secretary, Dr. A. G. Patton, Monmouth.

Treasurer, Miss A. R. Nichol, Monmouth.

At the last meeting held in Monmouth, June 16 ult., the constitution was changed to provide for two meetings a year viz: the first Friday in May and November.



Next Annual Meeting

Will be held in **Springfield** the

Third Tuesday of May

AND TWO SUCCEEDING DAYS (Viz: 22d, 23d and 24th), 1900.

Officers and Committees for the Year 1899-1900.

OFFICERS:

HAROLD N. MOYER, Chicago.....PRESIDENT
 J. T. McANALLY, CarbondaleFIRST VICE PRESIDENT
 WELLER VAN-HOOK, Chicago.....SECOND VICE PRESIDENT
 EDMUND W. WEIS, OttawaPERMANENT SECRETARY
 B. B. GRIFFITH, Springfield.....ASSISTANT SECRETARY
 GEORGE N. KREIDER, Springfield.....TREASURER

SECTION ONE.

PRACTICE OF MEDICINE, MEDICAL
 SPECIALTIES, MATERIA MEDICA AND
 THERAPEUTICS.

H. C. Mitchell.....Chairman
 Carbondale.
 Charles D. Center.....Secretary
 Quincy.

SECTION TWO.

SURGERY, SURGICAL SPECIALTIES,
 AND OBSTETRICS.

Denslow Lewis.....Chairman
 Chicago.
 C. E. Black.....Secretary
 Jacksonville.

SECTION THREE.

ETIOLOGY, STATE MEDICINE AND MED-
 ICAL JURISPRUDENCE.

George F. Butler.....Chairman
 Chicago.
 W. J. Fernald.....Secretary
 Rantoul.

COMMITTEE ON MEDICAL LEGISLATION.

J. W. Pettit, Ottawa, Chairman.
 Joseph Robbins, Quincy.
 W. H. Wilder, Chicago.
 J. A. Egan, Springfield.
 The President, Ex-Officio.

COMMITTEE ON NECROLOGY AND BIOGRAPHY.

John H. Hollister, Chicago.
 O. B. Will, Peoria.
 E. J. Brown, Decatur.

COMMITTEE ON MEDICAL SOCIETIES.

C. W. Hall, Kewanee.
 J. A. Baughman, Neoga.
 J. O. DeCourcy, East St. Louis.

COMMITTEE ON REGISTRATION. (Ex-Officio.)

George N. Kreider, Springfield.
 B. B. Griffith, Springfield.

EXECUTIVE COMMITTEE. (Ex-Officio.)

H. N. Moyer, Chicago.
 Edmund W. Weis, Ottawa.
 E. P. Bartlett, Springfield.
 H. C. Mitchell, Carbondale.
 Denslow Lewis, Chicago.
 Geo. F. Butler, Chicago.

COMMITTEE ON PUBLICATION.

Edmund W. Weis, Ottawa.
 H. N. Moyer, Chicago.
 George N. Kreider, Springfield.

COMMITTEE ON ARRANGEMENTS. Springfield.

E. P. Bartlett, Chairman, Sp'g'd.
 J. N. Dixon, Springfield.
 L. C. Taylor, Springfield.
 C. M. Bowcock, Springfield.
 B. B. Griffith, Springfield.

COMMITTEE ON SOCIETY HISTORY.

N. S. Davis, Chicago.
 Robert Boal, Lacon.
 DeLaskie Miller, Chicago.
 E. Ingals, Chicago.
 J. H. Hollister, Chicago.
 Edmund Andrews, Chicago
 T. D. Fitch, Chicago.
 L. G. Thompson, Lacon.

JUDICIAL COUNCIL:

C. C. Hunt, Dixon.
 Hugh T. Patrick, Chicago.
 C. DuHadway, Jerseyville.
 J. F. Percy, Galesburg.
 James L. Reat, Tuscola.
 C. E. Black, Jacksonville.
 E. P. Cook, Mendota.
 D. W. Graham, Chicago.
 O. B. Will, Peoria.

ILLINOIS Medical Journal

The Official Organ
of the
State Medical Society



A Monthly Bulletin
Edited by the
Publication Committee

Printed by
THE ILLINOIS STATE JOURNAL COMPANY.

Entered in the Springfield Postoffice as Second-Class Matter.

Volume XLIX. }
Number 3. }

Springfield, Ill., September, 1899.

{ Subscription, \$3 a Year.
{ Single Copies, 25 Cents.

TABLE OF CONTENTS.

ADDRESS.

The Surgery of the Puerperium—Denslow
Lewis, M. D., Chicago..... 99

ORIGINAL ARTICLES.

Puerperal Surgery—Bertha VanHoosen, M.
D., Chicago..... 113

Variation in the Manifestations of Malaria
—Chas. Dewey Center, M. D., Quincy.... 119

Atypic Malaria in Children; With a Case
in Point—Rosa Engelmann, A. B., M.
D., Chicago..... 122

The Treatment of Chronic Malaria—John
B. Maxwell, B. S., M. D., Mt. Carmel.... 124

EDITORIALS.

Faith Healing 130

Faith Healing and the Law... 131

OFFICIAL TRANSACTIONS.

Proceedings of Cairo Meeting—Second Day 126
Report of Committee on Journalizing
Transactions..... 126
Report of Special Auditing Committee.... 127
Organization of Nominating Committee... 128

CORRESPONDENCE.

The Relations of the Society to its Legis-
lative Committee and the State Board of
Health..... 132

State Items..... 135

Old Practitioners..... 138

Medical Miscellany..... 138

Reports of County and District Societies;
The Hanging Drop—C. C. Hunt, M. D.,
Dixon..... 137

Report of Annual Meeting of the Tri-County
Society..... 137

Report of July Meeting of the Champaign
County Society 138

Medical Societies of Illinois..... 141

Officers of State Society..... 144

LIST OF OFFICERS AND PLACES OF MEETING SINCE THE ORGANIZATION OF THE SOCIETY.

YEAR.	PRESIDENT.	VICE-PRESIDENT.	SECRETARY.	TREASURER.	PLACE OF MEETING.
1850*	Rudolphus Rouse.....	Rudolphus Rouse.....	Edwin G. Meek.....	John A. Halderman.....	Springfield.
1850	William B. Herrick.....	Edwin G. Meek.....	Edwin G. Meek.....	E. Rouse.....	Springfield.
1851	Samuel Thompson.....	E. McArthur.....	H. Schoemaker.....	E. Rouse.....	Peoria.
1852	Rudolphus Rouse.....	Thomas Hall.....	E. S. Cooper.....	Edward Dickenson.....	Jacksonville.
1853	Daniel Brainard.....	C. N. Andrews.....	H. A. Johnson.....	A. B. Chambers.....	Chicago.
1854	C. N. Andrews.....	Samuel Thompson.....	H. A. Johnson.....	N. S. Davis.....	La Salle.
1855	N. S. Davis.....	E. K. Roe.....	E. Andrews.....	J. V. Z. Blaney.....	Bloomington.
1856	H. Noble.....	T. D. Washburn.....	N. S. Davis.....	J. V. Z. Blaney.....	Vandalia.
1857	C. Goodbreak.....	A. D. McArthur.....	H. A. Johnson.....	J. V. Z. Blaney.....	Chicago.
1858	H. A. Johnson.....	William Lyman.....	N. S. Davis.....	J. W. Freer.....	Rockford.
1859	David Prince.....	H. W. Davis.....	N. S. Davis.....	J. W. Freer.....	Decatur.
1860	Wm. M. Chambers.....	T. K. Edmiston.....	N. S. Davis.....	J. W. Freer.....	Paris.
1863	A. McFarland.....	A. H. Luce.....	N. S. Davis.....	J. H. Hollister.....	Jacksonville.
1864	A. H. Luce.....	J. M. Steele.....	N. S. Davis.....	J. H. Hollister.....	Chicago.
1865	J. M. Steele.....	F. B. Haller.....	N. S. Davis.....	J. H. Hollister.....	Bloomington.
1866	F. B. Haller.....	L. T. Hewens.....	N. S. Davis.....	J. H. Hollister.....	Decatur.
1867	S. W. Noble.....	D. W. Young.....	N. S. Davis.....	J. H. Hollister.....	Springfield.
1868	S. T. Trowbridge.....	J. O. Hamilton.....	N. S. Davis.....	J. H. Hollister.....	Quincy.
1869	S. T. Trowbridge.....	J. O. Hamilton.....	N. S. Davis.....	J. H. Hollister.....	Chicago.
1870	J. V. Z. Blaney.....	G. W. Albin.....	T. D. Fitch.....	J. H. Hollister.....	Dixon.
1871	G. W. Albin.....	John Murphy.....	T. D. Fitch.....	J. H. Hollister.....	Peoria.
1872	J. O. Hamilton.....	T. Worrell.....	T. D. Fitch.....	J. H. Hollister.....	Rock Island.
1873	D. W. Young.....	T. D. Washburn.....	T. D. Fitch.....	J. H. Hollister.....	Bloomington.
1874	T. F. Worrell.....	E. L. Holmes.....	T. D. Fitch.....	J. H. Hollister.....	Chicago.
1875	J. H. Hollister.....	Wm. P. Pierce.....	T. D. Fitch.....	Wm. E. Quine.....	Jacksonville.
1876	T. D. Washburn.....	J. L. White.....	T. D. Fitch.....	J. H. Hollister.....	Urbana.
1877	T. D. Fitch.....	S. H. Birney.....	N. S. Davis.....	J. H. Hollister.....	Chicago.
1878	J. L. White.....	E. P. Cook.....	N. S. Davis.....	J. H. Hollister.....	Springfield.
1879	E. P. Cook.....	J. S. Whitmire.....	N. S. Davis.....	J. H. Hollister.....	Lincoln.
1880	Ephriam Ingals.....	G. W. Jones.....	N. S. Davis.....	J. H. Hollister.....	Belleville.
1881	G. W. Jones.....	William Hill.....	S. J. Jones.....	J. H. Hollister.....	Chicago.
1882	Robert Boal.....	A. T. Darrah.....	S. J. Jones.....	J. H. Hollister.....	Quincy.
1883	A. T. Darrah.....	L. G. Thompson.....	S. J. Jones.....	J. H. Hollister.....	Peoria.
1884	E. Andrews.....	D. S. Booth.....	S. J. Jones.....	Walter Hay.....	Chicago.
1885	D. S. Booth.....	S. C. Plummer.....	S. J. Jones.....	Walter Hay.....	Springfield.
1886	William A. Byrd.....	W. T. Kirk.....	S. J. Jones.....	Walter Hay.....	Bloomington.
1887	William T. Kirk.....	Elias Wengen.....	D. W. Graham.....	Walter Hay.....	Chicago.
1888	William O. Ensign.....	C. W. Earle.....	D. W. Graham.....	Walter Hay.....	Rock Island.
1889	C. W. Earle.....	P. H. Oyler.....	D. W. Graham.....	T. W. McIlvane.....	Jacksonville.
1890	John Wright.....	L. P. Mathews.....	D. W. Graham.....	T. W. McIlvane.....	Chicago.
1891	John P. Mathews.....	Charles C. Hunt.....	D. W. Graham.....	George N. Kreider.....	Springfield.
1892	Charles C. Hunt.....	E. F. Ingals.....	D. W. Graham.....	George N. Kreider.....	Vandalia.
1893	E. Fletcher Ingals.....	Otho B. Will.....	D. W. Graham.....	George N. Kreider.....	Chicago.
1894	Otho B. Will.....	D. R. Brower.....	J. B. Hamilton.....	George N. Kreider.....	Decatur.
1895	Daniel R. Brower.....	A. C. Corr.....	J. B. Hamilton.....	George N. Kreider.....	Springfield.
1896	D. W. Graham.....	J. M. G. Carter.....	J. B. Hamilton.....	George N. Kreider.....	Ottawa.
1897	A. C. Corr.....	J. M. G. Carter.....	J. B. Hamilton.....	George N. Kreider.....	East St. Louis.
1898	J. M. G. Carter.....	T. J. Pitner.....	E. W. Weis.....	George N. Kreider.....	Galesburg.
1899	T. J. Pitner.....	H. N. Moyer.....	E. W. Weis.....	George N. Kreider.....	Cairo.

*Preliminary Convention.

EXPLANATION.—No meeting was held in the years 1861 or 1862, "on account of the large number of members engaged as surgeons in the volunteer army of the United States."

Until the meeting of 1869, it was the custom to elect officers the first day, and for the President to have charge of the meeting at which he was elected. Hence Dr. Trowbridge seems to have presided over two meetings, although elected President but once.

The Illinois Medical Journal.

The Official Organ of The Illinois State Medical Society.

VOL. XLIX. }
No. 3. }

Springfield, Ill., September, 1899.

{ SUBSCRIPTION
{ \$3.00 A YEAR.

THE SURGERY OF THE PUERPERIUM.

BY DENSLOW LEWIS, M. D., CHICAGO.
[Address of Section II.]

The puerperium may be practically defined as a variable period, extending from the moment the placenta is delivered, until such time as the mother shall have normally recovered from the shock and other immediate local and systemic disturbances incident to labor. The puerperium is a most remarkable and, from many points of view, the most interesting and important period of a woman's life. The wonderful process of gestation has been brought to a close. The changes accompanying the return of the genitalia and indeed the entire organism to a condition resembling the normal, are among the most astonishing phenomena in physiology. A new function—lactation—is developed by means of which the child is nourished and maintained. Extended detail is unnecessary. Suffice it to recall certain facts which show the dangers, often potential but none the less important, to which the puerperal woman is exposed.

The process of involution creates an endosmotic flow which tends to favor invasion. The retention of blood-clots in utero, which is normal, and the retention of placenta remnants, which is adventitious, are factors which predispose to infection by furnishing a suitable soil for the development of microbes under conditions especially favorable for their culture. The traumatisms, which vary in degree, but are inevitable, may themselves require attention and in any event, will open up additional doors of entrance for the reception of the pathogenic bacteria which, according to recent observation, always infest the vagina. The strain to which the nervous

system has been subjected and the normal physiological changes incident to pregnancy unquestionably impair the power of resistance and indirectly predispose to microbic propagation and the dissemination of their toxins. Moreover, lactation is not unattended with danger. Lesions of the nipples favor the entrance of microbes and, according to certain French authorities, infection may also extend from the blood through the milk.

The danger of infection then is ever present in the puerpera. It is diminished by intelligent care which consists in the aseptic conduct of labor, the maintenance of free bowel movements, the aseptic care of the nipples and the judicious use of the breast bandage. It is especially diminished by eliminating all predisposing causes in advance. Gonorrhœa, chancroid, vulvo-vaginal abscesses, syphilitic patches and pus within the pelvis are certain to increase the danger of infection by furnishing an additional and an unusual supply of pathogenic bacteria. Ovarian cysts, the different anomalies of the bony pelvis or the soft parts and abnormal presentations of the child interfere with the normal progress of labor and increase the danger of infection by favoring undue traumatism and tending to exhaust the patient by prolonging the strain upon the nervous system. These factors should be recognized before the advent of labor, but it is only possible to do so by examination and observation during the latter months of pregnancy.

Surgery means mechanical interference which may be manual or instrumental. Its application during the puerperium has occasioned much controversy for it is realized to what a great extent involution favors infection and how dangerous are all manipulations within the vagina or uterus. The question in most instances is one of

election. Often it consists in a compromise. In all cases we must carefully weigh the evidence and our judgment and experience must determine whether an examination is necessary or whether a surgical procedure offers a better chance of recovery than leaving the woman alone. I believe it to be the part of wisdom, when in doubt, to do nothing. I prescribe no surgical measure without definite indication. I would also caution against the vaginal examination of the puerperal woman without good reason—that is, without the reasonable expectation of finding some condition requiring interference. Too many women have suffered an extension of infection from thoughtless examination. At the same time it must be admitted that many and many a woman has died because her medical attendant failed to interpret the symptoms presented and neglected to apply the proper surgical interference which alone could save life.

We will consider, if you please, these symptoms in detail. Realizing the danger of interference, we will try to determine, with a sufficient degree of accuracy to warrant definite advice, the conditions which render it preferable to examine the puerperal woman and often times to come to her relief with consistent application of well known surgical measures.

Post-partum hemorrhage is not always due to imperfect uterine retraction. There sometimes occurs a cervical laceration extending beyond the portio vaginalis and causing an excessive and alarming hemorrhage. Here surgical interference is imperative. Packing with gauze is often insufficient and is always dangerous because it predisposes to infection. The hemorrhage should be controlled by repair of the laceration. In case the labor has been normal and the uterus is retracted so it can be distinctly felt above the symphysis, it is necessary, if there is continuance of undue hemorrhage, to properly examine the patient for it is known that the hemorrhage may come from a lesion of any part of the parturient canal. This examination also

enables us to determine the presence of a polypus, retained coagula or placental remnants within the uterus.

It is realized that any examination or operation during the puerperium is a serious matter on account of the very great danger of inducing infection or of causing an extension of the infection that may already exist. For this reason it is important to make sure of the expediency of an examination before it is undertaken and, for the same reason it is imperative, when the necessity of an examination has been determined, to see to it that as far as practicable aseptic conditions prevail. These results can rarely be obtained with the woman on the bed where she has been delivered. In case any examination is undertaken there is usually the expectation of finding some condition calling for operative relief. For this reason, if for no other, the patient should be placed upon an improvised operating table so that she may be properly examined and may at once receive, under suitable surroundings, the benefit of any surgical measures it is thought best to apply.

In case of undue hemorrhage following labor, where the uterus is well retracted, the patient may be placed in the exaggerated lithotomy position upon a table, Simon's retractors may be inserted and the parts may be inspected. In cleansing the vagina it is not well to use absorbent cotton for it is rarely sterile. If blood is to be mopped away it is better to use sponges of sterile gauze held in forceps. A douche of a creolin solution or sterilized water is a valuable adjunct to all operations within the vagina. Retained blood-clots or placental remnants will be removed by the finger or douche. A sub-mucous polypus will be transfixed and cut away. If there is a well recognized laceration of the cervix which is causing the hemorrhage a curved needle carrying a silk suture will be passed through the superior corners of the laceration in the usual manner. If there is difficulty in passing the suture the lacerated portions may be seized with forceps to

facilitate the entrance of the needle and the coaptation of the edges. Other sutures are then passed and tied and the hemorrhage is controlled.

Lacerations of the anterior and especially of the posterior vaginal wall are often overlooked. In all cases of tedious labor or instrumental delivery, it is well to carefully inspect the vagina and portio vaginalis by means of retractors with the woman in the exaggerated lithotomy or Sims' position. The danger of infection by examination is less than the danger of favoring invasion by the failure to close the doors of entrance which are nearly certain to exist in consequence of undue traumatism. Moreover, it must be remembered that there occur lacerations of the pelvic aponeurosis or levator ani muscle with but a slight injury to the vaginal mucous membrane, and the importance of repairing these lesions is well understood. In the class of cases mentioned lacerations should be suspected and looked for, and when found they should invariably be closed by means of sutures within the vagina. Care should be taken to pass the needle deep enough to include any severed muscular fibres or torn aponeurosis beneath the vaginal mucous membrane.

Lacerations of the perineum and the episiotomy wound should be immediately repaired very much in the same manner. It is often found that the perineal laceration is continuous with a laceration of the posterior vaginal wall. In such an event the suturing of the vaginal laceration should be continued upon the mucous surface of the perineum and two or three additional sutures should be passed through the skin surface if that has been torn. Excessive injury of the perineum requires a modification of this technique. It may become evident that the laceration is too extensive to be successfully included in the sweep of the needle. It may appear that there is danger of undue constriction in case all the tissue is brought together by one suture. Under these conditions it is advisable to sew up the lacerations by layer

or *etage* sutures, which are buried, all being placed within the vagina. By this method no undue strain is put upon any row of sutures and the cardinal principle of all perineal operations is conserved—the parts are really brought together in the position they occupied prior to the injury. The continuous suture, as recommended by Martin of Berlin, may be used if found more convenient. Here also the operation becomes successful and complete for the parts are brought together in the same relationship that existed before the laceration occurred. Restoration of the perineum when thus performed really restores.

In case the perineal laceration includes the rectum a similar technique is recommended. The gut should be sutured by itself and the knots tied within the rectum. The perineal injury should be repaired by interrupted or continuous buried sutures all passed within the vagina except two or three sutures which approximate the torn skin surfaces. The advantages of this technique are real and practical. The operation is done deliberately and by sight. The torn surfaces are approximated very much as would be done in an incised wound of the arm. The difficult and complicated methods of Emmet and others, while answering all purposes when properly performed, can be safely superseded by the simple plan of operating just described. Moreover, in case of infection, the parts do not all slough. If the rectal surfaces fail to unite there results a condition resembling the wound produced by the usual operation for fistula in ano. In course of time, by the application of per-oxide of hydrogen or boracic acid, this wound will heal and the perineum will be reformed.

In the consideration of cases of hemorrhage during the puerperium and also when lacerations are suspected, the indication both for examination and treatment is self-evident and sometimes imperative. The state of affairs is different in the presence of infection or when its presence is suspected. The propriety of an examination should now be carefully considered, and

the value of actual knowledge of all facts in relation to the pregnancy and labor becomes of importance. In many instances the patient will have submitted to no examination during pregnancy and the details of her labor will be a matter of surmise. Under these conditions all possibilities must be considered, the probabilities must be properly weighed and all evidence procurable must be duly appraised to assist the judgment in arriving at a reasonable conclusion which shall indicate the best plan of treatment in individual instances.

If the conditions during pregnancy and labor are known, if no abnormal or intercurrent disease is present, if the uterus has properly retracted, if the placenta and membranes have been expelled in their entirety, if the urine is normally voided and the bowels act regularly, if lactation is well established and no appreciable lacerations have occurred, the advent of rapid pulse beat, chill, fever and pain constitute symptoms which can only indicate infection. They call, in my judgment, for examination and my experience teaches me that such examination will rarely be made in vain.

The condition of lochiometra is often present and not always recognized. There is apt to be a diminution in the quantity of the lochia which are usually offensive. The uterus is tender on pressure, the temperature is elevated and the patient complains of headache. The escape of the lochia is interfered with. There is saprophytic infection producing sapræmia by ptomaine absorption. A uterine douche of a creoline solution washes away blood-clots and the systemic symptoms subside. The uterus, which is usually somewhat displaced, returns to a normal position and involution continues. There is but slight opportunity for a difference of opinion here. There is no need of a curette, for blood-clots alone are within the uterus. A douche dislodges them perhaps better than can be done in any other way, and certainly with much less danger. If it be asserted that the patient would do better if let alone

I maintain that the condition is potentially serious, because a weakening of the vitality of the tissues may prove a preparation of the soil for pathogenic cocci which otherwise, by transmigration of leucocytes might have been rendered harmless.

The symptoms of infection are well known and easily recognized; their interpretation may be difficult and sometimes, for the moment, impossible. It is often a simple matter to say that infection exists; it may require the exercise of the highest judgment and the most mature experience to determine the best thing to do. The special difficulties met with during the puerperium have been referred to. The danger of increasing the infection will sometimes favor the postponement of an examination and the danger of air-embolism, metastatic abscess formation and an interference with the beneficent action of the phagocytes will make us hesitate before resorting to manipulations or the use of instruments. But our greatest difficulty comes from ignorance of the facts. In too many cases we know nothing of the antecedents of the patient. For this reason our treatment, if judicious, may be but tentative and unquestionably we often grope in the dark because we fear to do harm and because we have no means of learning of conditions except by the observation of their results.

The puerperal woman, if normally delivered, experiences a feeling of relief and satisfaction that her labor is happily concluded. Her pulse is full, strong, regular and above all things slow. Her temperature, under aseptic conditions, should rarely reach 100° F., and in many instances will remain below 99° F. She should urinate without inconvenience, rather more frequently than usual, and her bowels should move the second day and every day thereafter. From the first she should nurse her child at regular intervals without appreciable discomfort, but especially after the flow of milk is well established. The nipples should not be sensitive nor should the breasts be allowed to become unduly

distended. The lochia have always a characteristic odor, but they are rarely offensive unless there is interference with their escape, retention of blood-clots, placental remnants or membranes or infection of wounds of some part of the parturient canal. The uterus, when palpated above the symphysis, should not be tender. The patient naturally feels some fatigue and may be thirsty from loss of blood. Rest and enough water to quench thirst should in a day or two, when accustomed to her new surroundings, restore the patient to her former condition of health.

Any departure from this normal type of puerperal convalescence should excite apprehension. It does not always mean that there is infection, but it does often mean that something should be done. In case of increased pulse rate, chill, fever or abdominal tenderness with or without offensive lochia, it is to be remembered that these symptoms may be due to a distended bladder or rectum and may all disappear when these viscera are emptied. The symptoms may also be due to a distended breast and subside when the breast bandage is properly applied. The maintenance of a normal puerperal convalescence is indispensable to the diagnosis of conditions requiring surgical interference. Any deviation from the standard should first of all receive attention. It is surprising and most gratifying to observe how uterine tenderness will diminish, fever will disappear and all untoward symptoms will often improve by the introduction of a catheter, the administration of a cathartic or the application of the breast bandage.

In puerperal cases that have been under our charge from the first we know if normal delivery has occurred under aseptic conditions and, if we are alive to our responsibility, we should have ascertained by proper examination during pregnancy, if there exist conditions which can unfavorably influence the course of a normal convalescence. In other cases, where we are ignorant of these important matters, we should in most cases at the onset con-

sider the conditions of bladder, rectum and breast, and rectify any irregularity of function before we seek to determine the advisability of any interference, or indeed submit the patient to an examination.

Assuming then, that convalescence is apparently normal or that the simple measures indicated do not reduce pulse rate and temperature, restore function and diminish pain, we are justified, when symptoms of infection persist, in an examination with a view of determining if local lesions are discoverable of sufficient importance to stand in casual relationship with the symptoms observed.

If suppuration has occurred around stitches that have closed lacerations of vagina or perineum the pus should be evacuated, the parts treated with per-oxide of hydrogen and sometimes the stitches should be removed. In cases where no operation has been undertaken it is folly to attempt the closure of wounds already infected. Once pus has formed, its escape should be facilitated and not hindered as it is when suppurating surfaces are brought together. The infected wounds should be cleaned with per-oxide of hydrogen and dusted with boracic acid. In a week's time, in most instances, vulvar and vaginal ulcers become free from pus, and healing takes place by granulation. Vaginal douches in these cases are unnecessary and may do harm. If the examination reveals no infected lesions of the portio vaginalis and there is no uterine or pelvic tenderness the ulcerative condition of vaginal wounds may reasonably be regarded as the cause of the symptoms noted.

Infected lacerations of vulva and vagina must chiefly be differentiated from diphtheria, erysipelas, chancroid and various syphilitic manifestations. The venereal lesions are of course recognized prior to labor if there has been an examination of the patient. Chancroid is often discovered as soon as the nurse washes the vulva, and the ulceration will usually be more extensive than would be found in a laceration of the vulva directly after labor. Syphil-

itic lesions consist, as a rule, of condylomata sometimes more or less ulcerated. The history and the occurrence of lesions elsewhere on the body or the recognition of the results of former lesions will permit the establishment of the diagnosis if the possibilities are remembered. When the perineum is lacerated bilaterally and the median portion projects forwards, there may be a suggestion of a condyloma especially if there is ulceration. Diphtheria is easily differentiated when facilities for bacteriological research are at hand. Usually the concomitant symptoms in this disease and in erysipelas are of such a character that there is little doubt of the diagnosis.

In the absence of the lesions mentioned it becomes necessary to look further in our examination. The portio vaginalis may have been extensively torn during labor. Unless undue hemorrhage calls for immediate inspection of the parts, it is probable the lacerations will escape detection unless septic symptoms make an examination proper. Even when multiple incision of the cervix has been practiced it is usually considered best unless hemorrhage is excessive, to trust to aseptic conditions to secure healing rather than run the risk of infection by attempting an immediate operation. A trachelorrhaphy, as Dührssen has pointed out, is a small price to pay for a living child. When an ulcerative condition of the portio vaginalis exists it is in my opinion plainly evident that energetic treatment, as Leopold recommends, by means of chloride of zinc paste is not the best method to be employed. Saft has recorded a series of cases where the parts were let alone. The ulcers healed and systemic symptoms subsided very much as occurred when topical applications were made. Nevertheless, the use of per-oxide of hydrogen, tincture of iodine, powdered boracic acid or ichthyol in glycerine assists the healing of the ulcerative surfaces without favoring the formation of scars or interfering with the phagocytic barrier and thus causing an extension of the invasion.

If there is found no lesion of that portion of the parturient canal which is visible by means of the speculum, it is probable that the infection in most instances, but not in all, exists within the uterus or has extended from the endometrium, usually through the placental site. Infection extends chiefly in two ways. It may occur by continuity of epithelial surface through the tube to the ovary and to the peritoneum adjacent to the fimbriated extremities; it may occur through the veins and lymphatics from the placental site or from a lesion of any portion of the parturient canal. It must be remembered that it may also occur from any pre-existing focus wherever located and that, in any individual case, it might occur simultaneously in one or more of the several ways named. Furthermore, the occurrence of the fulminating type of sepsis must not be overlooked. In these unfortunate cases it is assumed that the microbial invasion is of so virulent a character that the patient is soon overcome by the intensity of the infection. For our purpose these cases may be disregarded. Contemporaneous medical science offers no remedy. Prochownick and others recommend doing nothing, for all attempts at treatment they regard as so much additional torture. This advice should be accepted under protest. At the same time it must be admitted that further observation and continued study along the lines of bacteriological research alone can give us hope of some day accurately determining the indications for common sense treatment in this serious class of cases.

Infection of the endometrium may be putrid or septic, that is, it may be due to bacilli or cocci. If the labor has been normal and aseptic and there is a development of septic symptoms, we realize that, in the absence of some unusual complication, only infected blood clots are within the uterus, and we advise a uterine douche of a creolin solution. Often the symptoms subside at once. In other cases, especially where we are ignorant of the details of the

labor, the uterine douche produces but transient amelioration and the question of further operative procedure arises.

It is well to realize the serious state of affairs that now confronts us. It is important to remember the course of nature's reparative efforts for otherwise we cannot appreciate the full extent of the danger of injudicious interference. On the one hand we have an infected mass within the uterus. If it remains it is a continuous source of infection. On the other hand curetting may break down the defensive barrier erected by phagocytic reaction and new avenues of entrance for pathogenic bacteria may be opened up. Instrumental procedures within the uterus may favor embolism or metastatic abscess formation. When the details of labor are known, the uterine douche is usually sufficient; at the same time there is always the possibility of a placenta succenturiata, although the existence of this anomaly is usually shown by undue hemorrhage. The same symptom is apt to occur when placental remnants are retained. Nevertheless, this symptom may be wanting, and in the absence of an exact history we may suspect the presence of a decomposing mass within the uterus. Our course of action is theoretically simple; practically, it is most difficult. We wish to remove the source of infection without interference with nature's process for the limitation of infection. If we can feel with our finger in the uterus a mass which is not removable by the douche we are justified, when septic symptoms persist, in attempting its removal by the finger or by curetting.

After abortion, the decidua may be partially detached but still retained within the uterus. In such an event it is well to remember that the presence of infection is of more importance than the presence of retained secundines. Of course it is advisable to secure the emptying of the uterus in every case of abortion. The retention of membranes furnishes a suitable soil for microbic development and is a mishap greatly to be deplored. Nevertheless,

when such retention occurs, frantic attempts to empty the uterus immediately are irrational in the extreme and likely to do harm. In a few days the decidua may separate and the mass within the uterus can perhaps be easily removed with the finger. If infection takes place there is but one course of action. The secundines must be removed in their entirety. In most cases dilatation and curetting are necessary.

After labor the case is different for the conditions are not the same. Here we are in many cases more apt to be in doubt as to the exact state of affairs within the uterus. We can appreciate, in cases we have delivered, the probability of retention of placental remnants and the uterine douche removes in many instances the entire contents of the uterus. In other cases it is often possible to explore the uterine cavity with the finger or with the blunt curette which is little more than an extension of the finger. By these means the uterine contents can usually be removed without violence to the phagocytic barrier which becomes of a more permanent character every day that elapses after birth.

When the infection has extended beyond the uterus our plan of treatment is radically different. The phagocytic barrier may now be disregarded for it has failed in its object. It has not kept the infection within limits. Its importance is now secondary to the importance within the uterus of a focus of infection, which must be removed, almost at all hazards. The possibility of embolism and metastatic abscess formation will be remembered, but we will above all things else very thoroughly understand and appreciate the fact that the source of the infection is still within the uterus and that the chief endeavor in our treatment must consist in its removal. For this purpose I believe the sharp curette is especially indicated. The danger of injuring the phagocytic barrier is now of minor, almost insignificant, importance. If possible, the source of infection must all be removed, and the endometrium must be regarded as a septic wound to be treated

by per-oxide of hydrogen, antiseptic douching and possibly by irrigation and drainage.

Extension of infection beyond the uterus occurs, as already stated, by way of the epithelium of the endometrium and tube to the peritoneum, or by means of veins or lymphatics through the placental site or through some wound of the parturient canal. In either case, if the invasion progresses, the involvement of the peritoneum is the ultimate outcome and the most serious result. In practice we recognize this extension by the persistence of septic symptoms, tenderness in the vaginal fornix, which is in relationship to the placental site, and by a feeling of induration on bimanual examination. Often these symptoms subside when the endometrium is curetted. At other times they persist and we await the outcome with much anxiety.

I have already said that when in doubt it is the part of wisdom to do nothing. I now say that when pus is present it should be evacuated. I will further say that if it is suspected, if fluctuation is noted in either fornix the needle of a large syringe should be used for exploration.

Facts are here more important than theories. We may think as we like regarding the etiology and pathology of these conditions. I know that following labor and abortion pus very often is found in what has been called the sub-peritoneal cavity of the pelvis, that is, the cavity bounded below by the levator ani muscle with the pelvic aponeurosis and above by the peritoneum. In more than a hundred cases I have found it there.

When septic symptoms occur during the puerperium and the infected uterine contents have been removed, it may happen, under the medicinal and topical treatment already described, that all such symptoms may disappear. Should they persist, in the absence of intercurrent disease, we may expect a thrombosis, often followed by a phlegmasia or by embolism or metastatic abscess formation or there may ensue an acute infection of the peritoneum or

suppuration somewhere within the pelvis. The latter is the most frequent sequel of infection. It is the most amenable to treatment but unfortunately is often overlooked. I believe this is because it is not often looked for.

Where infection has extended and septic symptoms persist despite curetting of the uterus and the treatment already mentioned, it is well to be on the alert for pus. Fluctuation in either vaginal fornix, together with fever and other septic symptoms, warrants an exploration by the vagina with a large hypodermic needle. Where fluctuation is deep seated the vagina should be cut and close to the uterus lest the ureter be injured. The finger will then often feel the abscess cavity or the needle enter it. In either event the abscess should be treated here as elsewhere in the body. Drainage tubes, packing with gauze, irrigation or topical treatment will remove all pus, make the walls of the abscess cavity fall together and ultimately obliterate it.

Where the case is seen late in the puerperium there may be but little difficulty in recognizing the pelvic abscess if it is looked for. It may present just above Poupart's ligament and may profitably be incised and drained there. It may be easily accessible from the vagina so that an incision near the uterus may secure free evacuation of pus. It may be advisable to establish through and through drainage, but at all events the incision must be timely, the drainage adequate and consistent means must be used to secure the healing of the abscess cavity.

This plan of treatment is criticised by certain gynecologists of experience. They claim that the operation is incomplete; they say we had better do an abdominal section and remove the walls of the abscess cavity as well. Whatever may be the value of this objection in many gynecological cases it does not, in my opinion, apply to most cases of pelvic abscess which occur during the puerperium. The process of involution, now underway, is a potential element

of danger and it must further be admitted that our knowledge of the actual extent of the invasion is necessarily imperfect so that our diagnosis is never complete. Under these conditions, I believe, as already stated, that no operative procedure should be undertaken without positive indication. I furthermore believe that every surgical measure should be as simple as possible consistent with the end in view. Our experience with the appendicitis has taught us the value of operating during the "time of peace."

We often diagnose peritonitis when pain, tenderness and tympanites occur in any portion of the abdomen in connection with the usual symptoms of infection. Sometimes all symptoms subside, when the endometrium is curetted or douched and free catharsis is secured. Often all symptoms referable to the peritoneum will disappear when an extra-peritoneal abscess is emptied. Extension of infection to the peritoneum usually occurs by way of the lymphatics. When it takes place along the parietal peritoneum there is developed the condition known as ecto-peritonitis which is an infection of the attached side of the peritoneum. There are present the usual symptoms of infection and in addition there is abdominal pain and tenderness on pressure. In pronounced instances the thickness of the abdominal wall will be appreciated and suppuration will be recognized by careful palpation. The abscess in ecto-peritonitis is extra-peritoneal and is to be treated by incision and if necessary by drainage and irrigation. The condition is similar to cases of abscess-formation sometimes observed in the abdominal wound following cœliotomy. Occasionally it may be advisable to make two incisions several inches apart and to pass a perforated rubber drainage tube from one opening to the other beneath the muscles of the abdominal wall. With this tube in place it is possible to inject per-oxide of hydrogen and to properly irrigate and drain the abscess cavity.

Cases occur where the infection of the

peritoneum is limited and the peritonitis that results is circumscribed. When suppuration supervenes the abscesses are walled off from the general peritoneal cavity so that they are really extra-peritoneal. Such abscesses are often observed in connection with the tube, ovary or appendix and their treatment is the same as that of other extra-peritoneal abscesses. They occur in connection with any abdominal viscus or between kinks of intestines. When recognized they must be incised and drained and great care must be taken that adhesions which wall off the general peritoneal cavity be not broken down. It sometimes happens, in the course of an infection of the peritoneum, that several abscesses will form one after the other. They must be evacuated separately and great care must be exercised not to break down adhesions. Whenever circumscribed pus collections occur in the peritoneal cavity they must be evacuated in case an extra-peritoneal operation can be performed. Their evacuation must also frequently be attempted when an extra-peritoneal relationship is not already demonstrable. If, in the course of a peritonitis, an abscess can be diagnosed by palpation and by the presence of severe symptoms which indicate a serious infection of the peritoneum, it is not only justifiable but advisable to make an abdominal section and to proceed to the evacuation of the contents of the abscess. In case there is no adhesion to the parietal peritoneum it may be possible to stitch the wall of the abscess-cavity to the abdominal incision. Otherwise a Mikulicz drain serves to maintain its extra-peritoneal character until adhesions form, as they do very rapidly, to protect the general peritoneal cavity. In certain instances after the belly is opened, it may be found that it is possible to drain the abscess through the vagina. In such an event the patient is immediately placed in the exaggerated lithotomy position, a vaginal incision is made and a drainage tube is inserted, the operation being greatly facilitated by steadying the pelvic

contents by the hand passed through the abdominal incision. When extensive and firm adhesions are noted, this method is preferable even if evacuation through the abdominal incision is possible. It must be admitted that abscesses which form within the peritoneal cavity are not always fatal. It is true that collections of pus between kinks of intestines may become encapsulated and to some extent absorbed, but it must not be forgotten that the adhesions that result are themselves a constant menace of life. It is hardly worth while for a patient to recover from an infection of the peritoneum if she is to die soon afterwards of intestinal obstruction.

Other forms of peritonitis are less amenable to consistent surgical treatment or to treatment of any kind. In the fulminating form, the acute bacteriæmia is so extensive that the peritonitis that may co-exist is but an incident and death occurs before any marked pathological changes take place in the peritoneum. In general septic peritonitis or diffuse peritonitis, as some authors prefer to name it, there is usually an infection from the placental site through the lymphatics, often of considerable extent and great severity. The lymphatics of the uterine mucosa are true lacunæ. Each of the three layers of the uterine muscle contains lymphatics which anastomose freely with the lymphatics of the mucosa as well as with the sub-serous vessels. All these lymphatics are in a more or less direct communication with what Ranvier calls the "lymphatic wells" directly between the peritoneum. There is also, as Ludwig has demonstrated, a communication between these sub-peritoneal lymphatics and the lymphatics just beneath the pleura. This disposition of the vessels explains the frequency of the extension of infection from one great serous cavity to the other.

When peritonitis supervenes in the course of a septic infection, our plan of treatment, in the absence of localized suppuration, which is clearly recognized, is largely symptomatic and often most un-

satisfactory. We realize that we have to deal with the effects of an extension of infection. If there is within the uterus an infected mass it must be removed, and in any event an antiseptic douche will be given. If there is suppuration in relationship with the parturient canal it must receive attention. If there is an abscess in the areolar tissue about the uterus it must be evacuated. If pus forms within the peritoneal cavity it must be removed as already explained. Further than this, surgery as yet has but little of value to offer in the treatment of peritonitis occurring during the puerperium.

There are, however, certain matters in connection with the treatment of peritonitis, which must be constantly borne in mind. There are relative indications. There are complications that demand immediate intervention. There are conditions where an operation offers the only chance for life and where the patient will surely die unless she is saved by surgical procedure. Death may occur anyway. It must occur, under certain conditions, without prompt relief.

The treatment of peritonitis to-day does not consist in an attempt to jugulate the inflammation by excessive doses of opium. Pain is reasonably controlled by the ice-coil and anodynes, but it is understood that the infection is the factor of chief importance. By the means already mentioned, supplemented by the application of serum therapy, and attention to the symptomatology and general nutrition, it may be that the infection will exhaust itself and the patient survive. At the same time it is imperative to be alert to the development of complications which are invariably fatal and which demand immediate intervention.

The first matter of importance in this connection is that the bowels must act regularly. I do not mean that they must act every day, but I do insist that nothing shall occur which interferes with normal peristalsis to an appreciable degree. With severe abdominal pain, with nausea and

vomiting, with excessive tympanites, with the ingestion of but a small quantity of nourishment often in concentrated form, it is not reasonable to suppose that there should be a free faecal discharge every day. At the same time any indication of obstruction must occasion serious anxiety. With the bowels inflamed we should understand just what may happen. The tympanites and tenderness may prevent us from recognizing a volvulus, an intussusception or an obstruction caused by adhesions. We must not wait for stercoraceous vomiting. We must be prepared to act as soon as there is evidence of obstruction.

Now to state what may be considered such an evidence and just what symptoms will warrant an operation is a very difficult matter, not attempted, except in a general way, by any author that I have read. If the treatment of peritoneal infection begins by giving salines, calomel, enemata of glycerine and water, or concentrated solutions of sulphate of magnesium, we will usually succeed in making the bowels move. If we fail, it may be necessary to flush the colon. If these means are unavailing I can hardly conceive of a case where an exploratory incision would not be indicated especially if the gut be full of wind which prevents the palpation of any abdominal tumor which might be caused by some form of obstruction. In the cases that I have seen I have never had any special difficulty in securing a bowel movement by the means indicated. When obstruction would occur in the course of time, there would be obstinate constipation and an exacerbation of all symptoms. Occasionally, I have been able, under anaesthesia, to locate the obstruction, but if that is impossible, I would still advise an exploratory abdominal section, for the chances of a spontaneous recovery when peritonitis exists are problematical in the extreme.

Excessive tympanites has never seemed to me to be of itself an indication for surgical interference. It will persist after all

other symptoms have subsided, sometimes causing much inconvenience. When there is general peritonitis, I do not recommend an operation unless there is danger of obstruction of the bowels or the presence of pus or other fluid in the peritoneal cavity is unmistakably determined. When a tumor can be recognized, either in connection with a viscus, or occurring between kinks of intestines, it is in most cases advisable to interfere, for there is great probability of pus or adhesions which in either case demands surgical intervention. The statistics of abdominal section in general diffuse peritonitis are most unsatisfactory. An operation in such cases, except under the conditions stated, will very rarely prove successful, as I know to my sorrow.

It would seem, from this consideration of the extension and sequelæ of infection, that our treatment essentially consists in the recognition and management of pus. This is practically true. Beyond the proper evacuation of abscesses and the intelligent care of inflammatory complications, the treatment is very largely hygienic and symptomatic. One operative procedure remains to be considered. We must discuss the indications for hysterectomy.

It is manifest at once that the indications for so serious an operation should be plain and unmistakable. It must be understood that the dangers of removing the puerperal uterus are much greater than in the case of the ordinary operation. The puerperal uterus is large and abundantly supplied with blood-vessels which are themselves hypertrophied. Of itself the process of involution favors infection and the technique of the operation is more difficult during the puerperium. Moreover, the thought of hysterectomy at this time is repugnant. The patient is fulfilling her noblest function. Hysterectomy will now leave her often indifferent to the conjugal embrace, sexless, and incapable of procreation. Her position becomes anomalous. She is often condemned to an unhappy

existence, not unknown to result in melancholia with suicidal tendencies.

These considerations, of course, are of minor importance if it be definitely determined that hysterectomy alone will save life. As would be expected, a review of the recorded cases shows an alarming mortality and in many instances we are forced to acknowledge that where the patient recovered, other less radical treatment might probably have sufficed.

Retained placenta is not an indication for hysterectomy, although Schultze amputated the corpus uteri when infection occurred in such a case. Consistent asepsis may succeed in preventing infection even if the placenta be adherent and its removal, when infection occurs, appears a more rational procedure than hysterectomy. Sippel, who was the first to do a suprapubic amputation for sepsis, asserts that the operation should be done for sapræmia when the putridity is limited to the uterus and no systemic infection has occurred. He tells us that the cervix need not be removed because the interior of the uterus alone is the source of infection. He also explains that vaginal hysterectomy is too dangerous and that the fetid contents of the uterus can easily infect the peritoneal cavity. In his case, which, like Schultze's, was fatal, we are told that the cervix was free from infection and also the parametrium and perimetrium. In my judgment it is not unreasonable to infer that a uterine douche or curetting would have given his patient a better chance for recovery. Had a thrombosis or phlegmasia developed, or had an abscess formed in the tissues about the uterus, or even elsewhere on the body, it is probable the interests of the patient would have been better conserved by less radical measures.

Wybe Ypma, of Freiburg, reported a case in 1895 which shows to my mind a very clear and comprehensive statement of measures always to be condemned. The twelfth day after labor, a woman who had been delivered without having been examined, developed septic endometritis

from retention of placental remnants. These were removed and a uterine douche of diluted chlorine water was given. Soon afterwards the patient had a chill and her temperature rose. She now was subjected to permanent drainage by means of a glass drainage tube and the douches of diluted chlorine water were given every hour, which resulted in an increase in the severity of all symptoms. The question of extirpation arose and the following remarkable presentation of the situation was submitted: "Either the septic process is limited to the corpus uteri, then is extirpation to be advised, or there is already a general infection, then the operation does not help but it also does no harm." The logic of this statement seems to have been irresistible, for the operation was performed and the patient died. The autopsy showed myocarditis, septic thrombosis of the left iliac and crural veins and pleuritis. Strange to say, the outcome in this case induced the author to advise operation when the septic process is limited to the uterus. He tells us in conclusion, that in his case, the parametrium was free from infection.

It is hardly necessary for me to expose the sophistry of the argument advanced or to expatiate on the errors of treatment in this case. The protective influence of the phagocytic barrier was disregarded. The danger of increasing the extension of infection by operative procedure was apparently not thought of. The hourly douche and the permanent drainage were most unfortunate measures. One uterine douche, followed perhaps by the use of per-oxide of hydrogen or possibly the intelligent employment of the curette would have been enough. Indeed, I am not so sure that it might not have been the best treatment to have followed the advice of Schrader, of Hamburg, who asserts that the puerperal woman should stink herself out.

Freund, of Strassburg, found in the post-mortem examination of pyæmic cases an isolated thrombo-phlebitis of the ovarian

vein on the side where the placenta was situated. This induced him to operate on two cases by cutting off the broad ligament and vein. Although both patients died he recommends the operation when there is intermittent fever and pain in the broad ligament and placental site. In this opinion, however, he stands alone.

Lusk spoke on this subject some two or three years ago. He called attention to the symptomatology of infected thrombi, telling us that the attack is ushered in by a violent chill followed by a high fever. Then, as we know, for perhaps thirty-six hours the patient seems perfectly well, but another chill follows. Lusk asks if it is not desirable after the second chill, when there is no longer doubt of the diagnosis, to perform hysterectomy and thus to prevent the spread of the pyæmic processes. Baldy replies by asking why we should wait for the second chill. He collects, in May, 1895, nineteen such operations, with seven successful results. In most of these cases more or less suppuration was found in the uterine walls. He remarks that all the seven recoveries were so many cases snatched from inevitable death, a statement, by the way, in which I cannot concur.

Phlebitis and thrombosis are not, in my judgment, suitable cases for hysterectomy or other operation. Hirst insists that in every instance they do better without operation. They are usually associated with phlegmasia alba dolens and usually recover. When thrombi are infected and dislodged, when metastatic abscesses have formed, our attention should be directed to the general condition of the patient and the care of the local abscesses, for the mischief is done and the focus of infection within the uterus is no longer the only important factor.

There are cases where hysterectomy is unquestionably indicated. When suppuration occurs in the subperitoneal cavity of the pelvic we sometimes find abscesses to either side of the uterus and in the cul-de-sac of Douglas. The uterus is apparently

surrounded by pus. Our vaginal incisions show large collections and in order to provide proper drainage we may think best to remove the uterus. We may be influenced to this decision by the fear that other abscesses are present between kinks of intestines or that the uterus itself is the seat of pus collections.

Then again when the symptoms warrant an abdominal section we may find behind the uterus, as Penrose did in one case, an accumulation of several ounces of pus encysted by the adherent uterus, omentum and intestines. The uterine tissue may be as soft as cheese so that the finger may easily pass through the uterine wall. It is needless to say under these conditions hysterectomy is no longer an operation of election but becomes imperative.

Here are two conditions then where hysterectomy is indicated. I know of no others—that is, no other practical indications. Theoretically we may argue as we choose. In the presence of a patient, the actual state of our knowledge to-day admits, in my opinion, the justifiability of the operation only under the conditions mentioned except it be in those rare cases of mutilation or rupture of the uterus where sepsis is present or is deemed inevitable or where repair of the injury is impracticable.

A few words regarding the technique may be pertinent. The operation, if my judgment in the matter is followed, will not be undertaken unless there is an accident requiring investigation or repair or unless, in our operative precedures for pelvic suppuration, it becomes evident that removal of the uterus is advisable to secure proper drainage or because the organ is itself a dangerous focus of infection. Hysterectomy under these conditions, is a subsidiary undertaking and our method of operation depends very largely upon the course that has been adopted in reference to the main factors in each particular case. If we have opened an abscess by vaginal incision through the left fornix and find evidence of suppuration in the other side

we will at once make an incision in the right fornix and in many cases we will succeed by judicious treatment in draining the abscess-cavity so that its walls may fall together and it may ultimately become obliterated. In certain instances we may conclude that these measures fail to provide adequate drainage. We may fear that there are other abscesses beyond our reach or we may decide that the uterus itself is septic. Under these conditions we will probably continue our work within the vagina and remove the uterus by vaginal hysterectomy, the details of the operation varying according to the difficulties encountered. In some instances the organ with its adnexa may be removed entire; at other times it will be removed in sections or the fundus will first be delivered through our incision. Hemostasis will probably be secured by forcipressure in preference to ligatures, for the hemorrhage is apt to be excessive.

There are other cases where our incision is abdominal. The pus may be in relation to the adnexa, the appendix or the peritoneum. It may be possible to remove the parts affected in their entirety or to satisfactorily drain the pelvic abscess through the abdominal wound or by counter-drainage through the vagina. When the uterus is involved and its removal seems necessary we will probably continue on in our work through the abdominal incision, the operation being greatly facilitated by the Trendelenburg position. In most instances we will apply forceps to the broad ligament and cut away the uterus about where the cervix projects into the vagina. We will then remove our forceps one by one and tie the tissue that was held in their grasp. Our efforts to tie arteries separately, as is now the custom in most abdominal hysterectomies, will probably be unsuccessful on account of the increased vascularity of the parts.

If the cervix has been seriously lacerated and indeed in almost all cases when the fundus is septic, the portio vaginalis should be removed if its removal is not attended by a great increase in the risk. I realize

that operations of this character are often undertaken when the woman is in extremis and the element of time may be of vital importance. Our knowledge of the lymphatic distribution should teach us in every case the probability of an extension of infection and should make us understand the desirability of removing every focus.

The technique of the extra-peritoneal method should be remembered. Lawson Tait tells us that hysterectomy so performed is the simplest of abdominal operations. In Porro's operation and in the removal of large fibroids I have seen some very brilliant recoveries. To-day we like to be exact in the placing of ligatures and the coaptation of cut surfaces and this tendency towards clean and accurate surgery is commendable. At the same time cases are still met with when the extra-peritoneal method under certain conditions will save life. It is a satisfaction to know that the abdomen can be incised, the uterus pulled up into the incision and a rubber ligature or a piece of drainage tubing can be tied around it so as to stop the hemorrhage. Then two long hat pins are made to transfix the mass under the ligature and serve to hold it in place. Large pieces of gauze are placed around the uterus so that no blood can enter the abdominal cavity. A portion of the mass about an inch above the ligature is now seized with large forceps. This is to control hemorrhage, if there be any, when with our scissors we cut into the mass just above the forceps. Successive portions of the uterus are removed in this way until the stump is left a raw, irregular surface with ten or a dozen forceps grasping the tissue where we have cut away perhaps the upper two-thirds of the uterus. Now the pieces of gauze are taken away and the abdominal incision is closed. We used to sew the peritoneum to the peritoneum of the stump, but Porro told me, some years ago, that this was unnecessary and he ought to know. We simply wind some gauze around the stump under the pins and apply a simple dressing. In a day or two, or perhaps at once, all forceps can be removed

and in the course of time the stump shrivels up and heals from the bottom.

This is not an ideal hysterectomy according to our latest perfection of technique. Nevertheless it has been done many times with good results. Under suitable conditions in certain emergencies it is still available. It is, when immediate hysterectomy is indicated, vastly better than doing nothing, while its simplicity and ease of execution are points in its favor which many of us will appreciate.

PUERPERAL SURGERY.

BY BERTHA VAN HOOSSEN, M. D., CHICAGO.

From earliest times there have always been fixed authorities to sustain and support the timid surgeon and to curb the bold one; authorities too that had behind them statistics and acknowledged skill. Yet in spite of this fact nearly every marked progress in surgery has been made under the ban of suspicion and at the jeopardy of reputation. It is difficult to believe that Morton was not carried aloft on the shoulders of the people when he made the discovery of anaesthesia or that McDowell should not have had the support of the profession when he boldly entered the unknown field of abdominal surgery. This is of course relating to epochs in surgery but in minor details it is as true. It is not that authorities do not wish the surgeon to violate surgical principals, but many times it is simply surgical fashion or custom that restrains him. This fashion or custom was originally based on the best scientific knowledge and on the statistics and usages of that time. But as medical science develops, these dry husks of custom and prejudice must be cast aside.

Puerperal fever has always been the dread of the physician and it is quite probable that in previous times none escaped. Old text books speak of the milk fever appearing on the third day and it seemed to be as necessary and natural at that time as healthy pus was to a healing wound.

Then came the knowledge of asepsis in obstetrics. It has been so vigorously preached and so rigidly practiced that puerperal fever (though having lost none of its dread) has been reduced to a minimum among reputable physicians.

The fact that in 1896 in Chicago there were 70 deaths from puerperal sepsis in every 1,000 deaths among females between the ages of 20 and 50 is not so appalling as one would think, for we have these factors to make this fact better understood:

1st. The major portion of the obstetric practice in Chicago is in the hands of midwives.

2d. Gonorrhoeal infection is incalculably large.

3d. Child bearing is the most common risk during this term of years.

4th. The greatest mortality in females is before 20 and after 50 years.

For proper appreciation of what asepsis has done for obstetrics we must look at the hospital records where we find years without a death from puerperal sepsis, and such a thing as an epidemic of puerperal fever is unknown. So general has been the knowledge of the causes of puerperal fever that a physician almost regards himself as criminal if a case occurs in his practice.

It probably is not strange that with this history and during this struggle obstetricians should have taught that the puerperal woman should have as little interference as possible; but now when our knowledge of asepsis is so perfect and when perfect surgical results are so easily obtained why now should we regard the puerperal condition in itself as contraindicating any surgical measure.

I do not know that the obstetricians of to-day teach that no operative procedure except for recent injuries or to relieve sepsis is admissible, but I know that such an impression is left on the minds of all students, and that such is the practice of the best obstetricians.

Case I.—In February, 1897, while on duty at the Mary Thompson Hospital I ex-

amined a patient who was within a few days of full term of pregnancy. The perineum had been lacerated through the sphincter, the tear extending up the rectum a distance of two inches. This injury occurred 10 years before at the birth of her first child. She had not been pregnant during the interval. The cervix pointed into the rectum, the vagina and rectum formed one passage. I felt that it would be extremely difficult to keep the feces from infecting the patient and in considering ways of preventing it I decided that the only way would be to restore the perineum immediately. The child was born at 11 P. M. on the 20th, and at 8 A. M. on the 21st I operated for complete laceration of the perineum using the Tait method, introducing 7 sutures of silk-worm gut between the rectal and vaginal flaps. The patient had no rise of temperature, nursed the baby, stitches were removed on the 10th day and the patient left the Hospital on the 14th day able to walk and with perfect control of the rectal sphincter and a restored perineum.

Case II.—In the following April I was called to attend a multipara at her third confinement. She had suffered severely during the pregnancy from relaxed vaginal outlet, the perineum having been torn through to the sphincter muscle in previous labors. This last labor was very rapid, child very large and when I arrived 10 minutes after the child was born I found on examining the patient that the vaginal mucous membrane and some of the fibers of the sphincter ani had given way. The fact that there was a slight fresh injury in addition to the old one gave me courage to suggest repairing the perineum. The patient was very eager to have it done and with the assistance of an untrained nurse and Dr. Anna B. Holmes as anesthetizer I performed a perineorrhaphy, introducing 5 silk-worm gut sutures. Patient had no special care save a vulvar douche of bichloride sol. 1-5000 twice a day. No catheterization was allowed, stitches removed on the 10th day, union perfect; the baby

nursed from the 2d day and on the 14th day the patient was allowed to go about the house.

Case III.—In July, 1897, Mrs. K. multipara called me in her third confinement. She had lacerated perineum and relaxed vaginal outlet causing great discomfort during the pregnancy. She wished to have the perineum repaired after the labor. Labor began July 12th, but was very tedious and was completed with instruments after uterine contractions had failed to make any progress in the descent of the head. Patient was much exhausted but rallied well and on the fourth day was anxious to have the old tear in the perineum repaired. Assisted by a medical student and a midwife as anesthetizer I repaired the perineum which had not suffered any further injury in the recent labor. Tait's method was used with the same after treatment and results as in the previous case.

Case IV.—In November, 1898, I was called to Mrs. S. multipara in her seventh confinement. Labor was short and easy. She had been advised some years before to have lacerations of the second degree repaired, but with her large family had found no time convenient for it. Immediately after labor with Dr. Francis Allen as anesthetizer and with no other assistance I repaired the perineum introducing 5 silk-worm gut sutures externally, and using the Tait method modified by removing the central portion of the vaginal flap on account of the rectocele, and introducing 5 silk-worm gut sutures in the vagina to close it. Patient had no douches, vaginal or vulvar, nursed her baby and sat up every day after the third day to have her bed made. On the 10th day did her work and the stitches were removed on the 16th day, union being perfect.

In the last case the result was fully as good as in Case I. In primary operations we could not be sure of obtaining as good results as these. In fact we find that in primary operations there is always a small per cent. that do not unite at all and another small per cent. that unite, but not

perfectly, not on account of infection, but because the tissues are too badly injured to recover their tone. That a secondary operation should give more perfect results is as easy to explain as that an amputation for disease should promise surer results than an amputation following a railroad accident.

Case V.—In October, 1898, I saw Mrs. J. five months pregnant, membranes had ruptured and the foetus was in the vagina. After removing the placenta the cervix was found to have been lacerated in previous labors on both sides up to the vaginal vault. The uterus contracted well, but on the fourth day after confinement the fundus had dropped back in the posterior cul-de-sac. Operation was advised to improve her health which had been poor since her first confinement. On the fifth day trachelorrhaphy was performed, good union was secured, and involution was rapid, patient getting up in better condition than she had been for four years.

Case VI.—In April, 1899, Mrs. K. called me to ascertain the cause for severe backache and prolonged menstruation. She had missed no menstrual period but was three months pregnant. Hanging from the deeply torn cervix-uteri were a number of large fibrous polypi. Hot douches were given and hemorrhage ceased for a week but returned with violence and accompanied by labor pains. She was removed at once to Wesley hospital, and miscarried during the night. On the following morning with the patient under anæsthesia I thoroughly curetted the uterus, removed the polypi, repaired the cervix and placed four stitches in the perineum which was torn so deeply that a large rectocele and smaller cystocele had resulted. On the 10th day, the patient was removed from the hospital and on the 12th day the stitches were removed. At the end of two weeks she resumed her family duties, the healing of the wounds being perfect.

What can be accomplished by taking advantage of the involution of the vagina

and uterus subsequent to labor is well illustrated in the following cases.

Case VII.—Mrs. T. seen in March, 1897, and desirous of being saved a miscarriage, thinking that she was four months pregnant. The enlarged uterus proved to be an intramural fibroid, reaching two inches below the umbilicus. The growth was slowly increasing and in November, 1897, I performed Martin's operation and tied both uterine arteries, after a thorough curetting. Uterus decreased in size until April, when it was about as large as a two months pregnancy. During the month of April it increased in size and when she lost her menstruation in the following month it was decided that she was pregnant. The pregnancy was normal in every respect save that menstruation appeared on the fourth, fifth and sixth months. In November, 1898, she was delivered of a well developed male child. Labor six hours, no hemorrhage, no laceration of soft parts. Involution was rapid and six weeks after the labor the uterus was found to be of normal size. This case is cited to show what can be accomplished by taking advantage of such a tremendous force as involution certainly is. In this connection I would like to give an abstract of two cases where Alexander's operation was performed—the patient having miscarried on account of long standing retroversion.

Case 1. The patient had miscarried three times during the year and had been thoroughly curetted twice. At the third miscarriage I removed the secundines with the curette and at the same time performed an Alexander operation. Wounds healed by the first intention and the involution of the uterus was rapid and permanent.

Case 2. In this case as well as the preceding, Alexander's operation was performed at the same time that the secundines were removed, union by first intention and permanent result. Both of these operations were performed in private houses.

Before venturing on any puerperal oper-

ation I felt that theoretically it was an ideal time for obtaining the best results for the following reasons:

1. With reference to sepsis—

(a) The vaginal secretions at this time are capable in themselves of destroying bacteria.

(b) The lochia as it comes from the uterus is similar in every respect, and in fact is the analogy of the blood and serum from the wounded surface. It is this discharge that will cover the field of operation and its composition is the same as the secretion that the surgeon deals with in every case which he operates upon. The only difference being in the amount of this secretion. There is no special condition of the puerperal woman that will make infection more possible at this than at any other time, all things being equal.

II. In reference to performance of the operation—

(a) The soft parts in the puerperal woman are as different from the soft parts of the non-puerperal as clay is from marble. The nine months pressure and the increased vascularity has made every cell and every membrane more distinctly a part than ever before since its embryonic condition. The vaginal mucous membrane, in fact each tissue is so marked in color, structure, surface appearance and feeling that with almost no effort the most elaborate and delicate dissection can be easily made.

(b) The conditions of the blood of a pregnant woman make it more coaguable and hence with even increased circulation we have less difficulty in controlling hemorrhage.

(c) The hypertrophy which takes place in all the muscular structures along the parturient canal gives us more tissues to work with and aids in this respect the performance of the operation.

III. In reference to the results of the operation—

(a) Increased circulation makes the union more certain.

(b) After union the subsequent involu-

tion makes the scar tissue less in amount and

(c) Operating before involution takes place, makes certain more exact coaptation of each individual tissue.

(d) The perfect repair stimulating involution makes the involution more perfect.

IV. In reference to economizing time of patient and surgeon—

(a) There is only one time when it is ever really convenient for a woman to have repairs done on account of puerperal injury and that is during puerperium. For the first three days after confinement it is not necessary and usually not possible to nurse the baby, and after the first three days there is almost no operation that could have been performed to disturb the patient sufficiently to prevent nursing the child. At no other time during the first nine months does the child require so little nourishment.

(b) The expense of nurse and preparation for confinement and operation is reduced by combining the confinement and operation.

(c) At no other time is it so easy to gain the consent of the patient to an operation and at no other time does she have so little dread of an anesthetic.

V. In reference to pain—

(a) After nine months pregnancy and the prolonged pressure of labor the additional pain of an operation is fractional.

(b) By securing involution a tedious convalescence and months of dragging pain and backache are avoided.

VI. In reference to anesthesia—

(a) At no other time could an operation without anesthesia be considered, but immediately after labor even secondary operations on the parturient canal can be successfully accomplished without chloroform.

(b) The condition of blood of the pregnant woman renders the amount of chloroform necessary for complete anesthesia less than at other times.

(c) Nausea following an anesthetic is

rare in the pregnant woman. In none of the cases I have reported was there any nausea following the operation.

The cases reported ought to more than justify all my theoretical conclusions. But above all these I place the argument that the best time for a large per cent. of gynecological operations, especially for repairing puerperal injuries is during the puerperium because it is nature's elective time. Because some seeds will mature when planted in late summer is not an argument that spring-time is not the time to plant seeds. All great discoveries and progress in medical science have been in imitation of nature's methods of work, and our most recent hero in science, Nansen, has reached his present position because he battled with nature and not against her. When nature is repairing is the time to repair. When nature is causing involution is the best time for us to get involution—if it is nature's time it is best time and if circumstances compel us to take other times, they are not necessarily better times.

DISCUSSION.

DR. HENRY F. LEWIS, Chicago: I take slight exception to some of the points in each paper. In the first place, Dr. Lewis spoke of a small-pointed needle in connection with the use of peroxide of hydrogen in infections of the uterine cavity after labor. We should bear in mind the danger there is of the partially contracted surface being so small as to allow the ablation with the peroxide of hydrogen to force the infected matter farther up the tube. The aurist tells us that there is considerable danger from the use of peroxide of hydrogen in cases of otitis media which is a somewhat analogous condition on a small scale.

I take issue with Dr. VanHoosen regarding one or two points. While the results in the cases she has reported are brilliant, I am afraid that they are so good as to lead to danger on the part of some of us who may not have the same facilities for operating, or are not so sure of asepsis. There is an added danger of infection in the case of the puerperal woman, especially in those cases of which Dr. VanHoosen has spoken, although there may have been the best attendance and assistance in the way of nursing and the surroundings with the assurance of asepsis. In those cases there is considerable danger of infection anyway from things we cannot help, nor can the nurses help, in the after-treatment of puerperal cases. We not only give the parturient canal a chance for further infection at the operation by opening up addi-

tional avenues, but we are liable in our manipulations to push up bacteria from the vulva and region outside of the parturient canal and around the vulva which may not possibly be aseptized. While the results of Dr. VanHoosen have been good, before we are called upon to adopt measures of the kind referred to, we should have reports of hundreds of cases instead of a few which show good results.

DR. EDWARD H. OCHSNER, Chicago: It is not many years ago that the gynecologist advocated heroic doses of opium for the control of peristalsis; then came the period when everybody advocated the use of large doses of calomel, and following this small doses of calomel, and at the present time the great majority of gynecologists are using small, but repeated, doses of salts. I think there is a course between the two which is by far the best one, and that is to give absolutely nothing by the mouth. When we have beginning peritonitis the thing to do is first to give one dose of a good cathartic which will empty the bowel, then there will be nothing there to cause peristalsis; the adhesions forming will not be broken up; the abscess will be circumscribed; absorption of pus will be benefited, and the results following this treatment will be found to be much better than those obtained by the administration of opium or by the administration of small doses of salts. I am convinced that if two-thirds of the gynecologists and surgeons from now on will recommend this treatment, they will find their cases will be much better than by following either of the old methods.

DR. W. H. CALDWELL, Freeport: One word in reference to the first paper relative to the use of the curette in puerperal cases. I believe the curette is one of the worst abused instruments in all the domain of puerperal surgery. When you attend a woman in confinement, it is your duty to know whether or not the membranes have passed away. You may be convinced of this fact, but two or three or perhaps four days after this the woman is taken with a chill; her temperature rises, and presto, change. I am called frequently in consultation to see these cases with the younger members of our profession. The old doctor with a great deal of self-confidence says there is nothing to be done. I am told that the woman's uterus has not only been curetted once, but perhaps every day for weeks, and a more abominable practice than this can hardly be conceived in my estimation. In the first place, if you have removed everything of a foreign nature from the uterus, why should you use the curette at all? In the majority of instances you should not. You are not convinced; you may not know whether the sepsis is in the vaginal walls or in the uterus. Then, again, if it is in the uterus, if you curette away the mucous membrane of this organ, what do you do? Unless you leave the uterus after this process absolutely and positively aseptic, you have simply laid bare an immense number of vessels that are simply mouths to absorb every bit of septic

material that is left. My practice in these cases is this: I go into the womb with my fingers; I ascertain whether there is anything left behind that ought to be removed. I will take a case, for example, that has miscarried in the third or fourth month of pregnancy. I am called to see the woman and find she has a high temperature with evidences of infection. Now, what does the average practitioner do? He takes a curette and curettes the whole uterine surface. I go in with my finger and ascertain if there is anything that needs removal; I curette with my finger, after which I frequently swab the uterine cavity with a thoroughly aseptic preparation.

I have simply risen to say that the curette in the vast majority of these cases is an abominable instrument and sends lots of women to their graves. If they were let alone, they would get well.

DR. M. L. HARRIS, Chicago: I wish to mention two points in the admirable paper of Dr. Lewis. First, the use of the needle in the pelvis in the puerperal state. There are objections to its use. The large vessels of the uterus are so displaced when we have pelvic exudates that it is impossible to tell the exact location of the uterine artery, which has been punctured by the needle, resulting in the most alarming hemorrhage which has been extremely difficult in some cases to control. Second, its unreliability. It is often impossible to know a mass of pus by the needle, owing to our inability to locate it. The exudate may not have become sufficiently softened to be withdrawn through the needle, thus making its use very unreliable, leading us to false conclusions, and if we do not get pus we reach the conclusion that it does not exist. The condition of the woman may be serious and the examination reveals a condition which leads us to the conclusion that peri-uterine suppuration has taken place, and in such cases it is much safer and more reliable to proceed to the open method through the vagina at once. The second point is the danger of hemorrhage in opening through the vagina and introducing our fingers. While this is commendable, I simply call attention to the danger of hemorrhage as a precaution. The large uterine sinuses in the puerperal state remain very much uncontracted when inflammatory conditions exist. Unless, in introducing our finger we keep well to the mid-line and enter the cul-de-sac posterior to the uterus, keeping away entirely from the lateral wall of the uterus, we are liable to open these large sinuses with our finger. I have seen the most alarming and serious hemorrhage in these cases depleting the patient in a few minutes from opening these sinuses with the finger. The tissues in this condition are so fragile as a result of the inflammation, that clamps cannot be used to control hemorrhage, and for that reason it persists often in spite of the most effective tamponnade.

DR. WILSON, Cairo: In regard to the use of the curette, there are indications for it occasionally, and when indicated it is indispensable. As one of the essayists remarked, we interpret

the indications and by fulfilling them we obtain ideal results. We ought to be careful as to the use of the curette.

DR. H. W. CHAPMAN, White Hall: I want to say a word or two in reference to the remarks of Dr. Van Hoosen as to the absolute necessity of the use of chloroform in these plastic operations excepting during the puerperal period. I believe that general anesthesia is used in these cases very much oftener than is necessary. In seventeen or eighteen years' experience of that kind of work, I have yet to use general anesthesia in the first case of trachelorrhaphy. In trachelorrhaphy I find it is unnecessary to use local anesthesia, and that a stream of hot water flowing over the surface at the time of operation is sufficient. In the case of the perineum, the application to the mucous membrane of a 10 per cent. solution of cocaine with the injection of number 2 Schleich infiltration solution is sufficient. A very nervous patient will sometimes make a demonstration under the latter operation, but as a rule not so much as she would in taking ether.

DR. J. E. ALLABEN, Rockford: The objections raised by one of the gentlemen as to the danger of infection in such cases can hardly be sustained. In the first place, the tendency in all cases of the kind is to do reparative work which is made necessary by the immediate confinement. I believe there is but one ground to take at the present time, and that is to repair the lacerated perineum immediately after confinement. We repair it for the purpose of preventing infection. Where there is a perineal tear, we do not endanger the patient very much by freshening the edges of an old laceration and repairing the whole thing at that time. Instead of putting the patient in a condition to be more susceptible to infection, we put her in a better condition for rapid recovery and the prevention of infection. We must consider after all such reparative operations, that infection must be prevented by antiseptic precautions not only at, but after the operation. The tendency at the present time is to repair not only the perineum, but the cervix also, should there be a laceration of the latter.

DR. LEWIS (closing the discussion): Those interested in the subject of my paper will find, when the transactions are published, in what I have written a reply to and explanation of many of the objections that have been raised. Owing to lack of time, I shall not attempt to go into any further discussion, although I wish to call attention to the point made by Dr. Harris regarding the use of the hypodermic needle. The point is a good one. I see many cases of abscesses forming in the subperitoneal tissue of the pelvis, and I find in the practice of gentlemen who call me in consultation such ignorance apparently of their presence that I feel that it may not be uninteresting for me to state that they can be easily recognized in this manner without any special danger. Such I believe to be a fact in most cases. As far as my individual methods go, I very rarely use the needle for the demonstration of pus. In many

cases following abortion I cut behind the uterus, as advised by Henrotin, and demonstrated before the American Gynecological Society, and in no case where I cut for pus have I failed to find it. In many cases I pass my finger in among the areolar tissue and work it up to the abscess cavity which is opened by the scalpel. Under the conditions mentioned, where the abscess has been duly recognized, there is no special danger in the use of the needle, and in the hands of most practitioners, who have not had an extended experience in the treatment of these cases, it would be a comfort to them to demonstrate the presence of pus before attempting its evacuation by means of an incision.

VARIATIONS IN THE MANIFESTATIONS OF MALARIA.

BY CHAS. DEWEY CENTER, M. D., QUINCY.

To the medical man living in the state of Illinois the subject of Malaria must come as a living entity, for like the poor ye have it with you always. It is not a new or fashionable disease, but, according to Osler, is, after an acquaintance of two hundred years, the only acute disease for which we have an absolute specific. The word absolute is quoted, and there is no doubt that if the question were asked of this audience at least four absolute specifics would be mentioned.

Malaria is a versatile disease, and the remark applied to syphilis, that it simulates all other diseases, might justly be applied to malaria. There are some among you who can recall cases you first diagnosed as puerperal sepsis, as septic intoxication following operation; as typhoid; as one of the many acute forms of gastro-intestinal disturbances; as hæmaturia, by this I mean a diagnosis of the nephritic symptom, and not the something behind it, as rheumatism, all cases you afterwards found unmistakably malarial. There are valid reasons for this versatility, reasons becoming more and more understood from day to day. In 1879 Lewis discovered a parasite in the blood of malarial patients. In 1880 Laveran discovered and named this parasite, and we now know that Laveran's parasite may be multiplied by three, and pos-

sibly by four, and that while each organism causes malaria, there are distinguishing ear marks accompanying the workings of each variety. In the words of Thayer, who has studied and tabulated over 1,600 cases, the malarial parasite is not a single and polymorphous organism, but the three forms represent distinct and separate varieties of organisms.

A classification of the causes for the varied forms of malarial manifestations gives,

First—A variation arising from difference in the causative parasite.

Second—Variation caused by individual difference, or personality.

Third—Variation caused by locality and time.

Fourth—Variation shown by deviation, or failure in use of the recognized specific, quinine.

In considering the first cause for variation let us recognize the three chief forms of the plasmodium, the tertian, the quartan, and the crescent, or æstivo-autumnal. The quotidian of Golgi is, I believe, not yet thoroughly established, some investigators holding with him, and others believing that cases said to be caused by this fourth parasite are either double implantations, or mixed implantations.

The characteristics more or less common to all the forms of the plasmodium are, activity of the flagellæ, symmetry as to length and form, dilatation at the point where the flagella is given off the body; the clubbed shaped extremities, breaking off, or separation of the flagella, and the spirilla-like motion of the fragment. The uniformity of these characteristics is particularly interesting since it has been determined very recently by Koch, the eminent German bacteriologist, that the flagellæ of the plasmodium are, in reality, the spermatozoa.

The chief differences subjectively are the number of spores, difference in activity of the plasmodium, difference in action on the blood corpuscle, difference in color, difference in the power to convert hæmag-

lobin into melanin, difference in sites of selection, and difference in outline so far as the crescent, or the irregular æstivo-autumnal form is concerned. Objectively the differences are in the periods of time for chill and temperature, the location of greatest discomfort, the time of year, and the surrendering of the disease to, or its resisting Quinin. Taking up the causative parasite, or parasites, reasons can readily be seen for some of the differences of malarial manifestations. All of these parasites are hæmatozoa. All exist within and at the expense of the red blood corpuscle, but the tertian whose life cycle runs from chill to chill every other day, and whose habitat is in the circulating blood, differs from the quartan whose life cycle is twenty-four hours longer, whose habitat is also the circulating medium and the red corpuscle, and both these differ from the æstivo-autumnal whose cycle seems very irregular, and whose habitat is also the red corpuscle, but those of the bone marrow and the spleen. The tertian, short of life, is more active than the quartan. Its color is lighter. It has a greater number of pigment granules and they are smaller than those of the quartan. It causes the red corpuscle to swell, while the corpuscle retains most of its color. The quartan causes decolorization and shrinkage. Both respond to Quinin, the tertian possibly a little more readily than the quartan. These parasites cause what may be called typical cases. They may be depended on. Herein they differ from the æstivo-autumnal, or crescent hæmatozoön which produces the relapsing fever, the pernicious fever, the irregular fever, the atypical forms.

It is well to bear in mind that there may also be atypical forms caused by a double infection, a double tertian for instance, or as often seen there may be type deviation caused by the paroxysm gaining a few hours on itself each day, the form known as anticipating fever. The matter of personality has no greater weight in cases of malarial than in any other systematic disorder. If all men were created alike it is

safe to say that by this time we would have specifics for at least half of the recognized diseases. The successful practice of medicine consists of two-sevenths diagnosis, two-sevenths therapeutics, and three-sevenths knowing the patient. Given a disease like malaria whose causative agent inhabits the life giving medium of the body to the detriment of its most important constituent, as well as to the detriment of every part of the system through which it courses, and the resulting symptoms will be varied, and in many cases complex and puzzling. Like any other disease malaria attacks the point of least resistance. The parasite attacks the red corpuscle, but the strain comes upon the weakest link of the chain.

So diversified are the systemic manifestations of malaria in its aggravated forms that one work on the subject classifies them under five different names, the bilious, the hemorrhagic, the algid, the asthenic, and the comatose; the name being chosen from the most prominent symptom. With these aggravated forms are names of the simpler and more common varieties, the intermittent, remittent, the masked form frequently known as dumb ague, the continuous, and the malarial cachexia. Of fifty-one cases I have tabulated, twenty-five were cases of remittent fever, eighteen of simple intermittent, and of the remainder, two might be classed as hemorrhagic, one comatose, one continuous, and four as the bilious type. This latter term is open to so many interpretations that it seems a very unsatisfactory one.

The third great cause for variation is, locality and time. This cause operates secondarily, since the difference is really made by the differences in the plasmodium. In some of the malarial belts the tertian hæmatozoön is the only one found; in others the quartan; in others the irregular, crescent, or æstivo-autumnal. Osler considers the quartan very rare north of the Chesapeake bay. James says the tertian is the parasite of malaria in and about

New York city. In a study of four hundred cases in west Africa Surgeon-Captain Duggan found the tertian but once and the quartan not at all, the causative parasite here being the irregular æstivo-autumnal. During 1897, in Transcaspia, a province of Asiatic Russia, there was an epidemic of malaria following the overflow of the river Murghat, when 6 per cent. of the entire population died, about 35 per cent. having the disease. This was called the quotidian form, but like the following case, reported by Miner, of Montana, seen by him 6,000 feet above sea level, there is no record as to whether Golgi's quotidian parasite was found, or whether it was a double, or a mixed implantation. In the northern part of this state the æstivo-autumnal parasite is rare. In Quincy it is not uncommon, and probably is quite common as far south as this city.

The element of time, you will note, is recognized by the name of the crescent parasite.

Turning from the variations of locality, let us take up those shown by deviation in results, in the use of the recognized specific, Quinin. Speaking in a general way all acknowledge Quinin as the specific for malaria, and yet there are, no doubt, some among you who pin your faith to Arsenic, or Methyline Blue, or Iron, or Iodine, or Mercury, or Eucalyptus. When my college days were ended my mind held the strongest conviction that of one disease at least, I was absolute master, that malaria had no terrors for me, for Quinin would cure it. After locating in Quincy my faith was rudely shaken. During my first spring and summer there, we had an unusual rise of the river. During the latter summer and early fall there was considerable malaria, many of the cases being atypical ones. In at least half of the cases Quinin alone seemed powerless to cure. If there were chills it would stop them, at least for a time, but the splenic pain, the aching of the bones, the nausea and vomiting, the headache and the extreme lassitude would go merrily on. I regret to

say blood examinations were not made for proof, but these were undoubtedly cases of true æstivo-autumnal fever, and in the words of one author, the crescent parasite laughs at Quinin, and remains in the blood for weeks. The majority of these cases had taken Quinin before calling a doctor. (Laymen buy Quinin by the ounce in Quincy, and take from two to twenty grains, p. r. n.)

Some of these patients would say that the chills were gone, but that they felt worse than ever. The patients were nearly all pale, a yellowish pallor, the indicative color for broken down red corpuscles. The sclerotics were yellow. The tongue dry, lightly coated with whitish coat superimposed on a bluish red tongue; breath offensive, anorexia, nausea and vomiting; some with gastric pain, others without; constipation and diarrhœa about evenly divided; great splenic pain with some splenic enlargement; intense cephalalgia and sacralalgia in nearly all cases; mild delirium in some; albuminuria in about half, and hæmaturia occasionally. These cases laughed at Quinin alone, either the small or the large dose, whether given hypodermically, by mouth, or by inunction. On the other hand, they did well, after a mercurial purge, on small doses of Quinin combined with arsenic, the preference being given to the arsenite of potassium. After two or three weeks of this they were placed on the tincture of the chlorid of iron, and made rapid and satisfactory recoveries.

To recapitulate.

Malaria is a generic term, embracing several distinct and different manifestations of disease, caused by separate and different parasites, parasites differing in age, habits and many morphological characteristics, these differences causing the various manifestations recognized in the clinical study of the disease, and necessitating the use of other remedies than Quinin for satisfactory and permanent relief.

ATYPIC MALARIA IN CHILDREN; WITH A CASE IN POINT.

BY ROSA ENGELMANN, B. A., M. D., CHICAGO.
Professor of Pediatrics, Post-Graduate Medical School;
Instructor Pediatrics, College of Physicians and Sur-
geons, University of Illinois; Medical Inspector
Chicago Health Department, etc.; Assistant
Secretary College of Physicians and Sur-
geons, University of Illinois.

It is well known that malaria in children under six years of age runs such an irregular course as to render a correct diagnosis difficult.

Reference to a case that misled me as it did many of our most prominent diagnosticians, confirms this feature.

I had seen the child six months previous to my second visit, for hip joint pain and lameness. Incipient tuberculosis was excluded by Dr. John Ridlon. I finally concluded that the trouble was hysterical. I have since learned of reported malarial joint swellings and pain simulating hysteria. The little girl was now suffering from progressive emaciation, anorexia, insomnia and excessive polydipsia and polyuria. Many and repeated examinations of the urine failed to show the presence of sugar, traces of which I believe, however, were finally found. Doctor's Frank Billings, Edwards, Kuh and Quine also saw the patient. The latter recommended a blood examination. Dr. Klebs and others demonstrated the malarial plasmodium. The exhibition of intermittent small doses of quinine in six weeks reduced the amount of urine from thirty to three pints a day. Albuminuria and glycosuria are recognized complications of malaria. Jacoud and Vallin assert that the temporary diabetes of malaria may become permanent.

The following incomplete history offers some interesting data. The persistent cough (resistant to all ordinary treatment), and pulmonic infiltration, not of tubercular origin, with low temperature, puzzled and misled me.

Margaret W., six years old, living in a sun-shiny, well heated flat in a healthy

neighborhood, had had no previous illnesses except diphtheria. She was about to be operated upon for cleft palate when she was brought to me October 16th for slight cough, anorexia, anemia, restlessness, sleeplessness, pain in the left side and slight rise of temperature. October 26th, no improvement noted. Lungs examined; small area of dullness, bronchial breathing and crepitant rales confined to a small space in the left axillary region were noted. Temperature not much above 99 F.; pulse was correspondingly slow and respiration not accelerated. October 31st condition the same. Thinking that I might have overlooked a typhoid infection, I now made a more careful abdominal investigation. All signs and symptoms were negative except a spleen, palpable two fingers breadth below the costal arch. The diazo urinary reaction was demonstrated, but Widal's test proved negative. Malaria finally suggested itself, and I made a blood examination and submitted it for confirmation to Dr. Robert Zeit. The plasmodium malariae was shown in the first specimen; but after the institution of the quinine treatment disappeared, as did the primary leucocytosis that must have been an initial phagocytosis, notwithstanding Cabot's dictum to the contrary. Osler says: "The leucocytes are almost invariably diminished in man in malarial fever." Again, "leucocytosis is rare." The child was put upon iron and arsenic, and quinine inunctions proving a failure, the latter in solution was finally given, up to thirty grains a day. All unpleasant drug effects were wanting, and I was obliged to treat the case thus heroically and empirically because at no time was I able to determine the cycle of the disease either by the closest observation of the symptoms or by the temperature record. She never sweat nor was chilly; neither was there any intermission of temperature. It fluctuated after the exhibition of quinine for six weeks from 99° to 100° and never rose above this. She rapidly gained flesh, strength and color and the splenic tumor

vanished. She took diminishing doses of quinine until December 16th. After two months' treatment, I pronounced her absolutely well. Up to date there has been no recurrence.

This case calls attention to the following points:

- I. Unknown mode of infection.
- II. Irregular and masked course of the disease.
- III. Undetermined type of protozoön.
- IV. Evanescient leucocytosis.
- V. Limited area of pulmonic consolidation, associated with peculiarly low temperature curve, pulse and respiratory ratio.

The season of the year (October) excluded a mosquito contagion. These insects are probably the temporary rather than the permanent host of the hæmatazoon. Von Limbeck believes that the life history of this parasite external to the human body is the ground drinking water or air. Norton contends that at present we have no proof that this organism lives in water. If water borne, other neighborhood cases should have occurred.

Dr. Harley observed cases of malaria in his own family traced to the water of an artesian well, with recovery in every instance after sterilization of the drinking water. If earth borne, the same reason would obtain. Moreover, neighborhood, and environment was good; free from moisture, decaying vegetables and from tearing up the soil.

Flügge advocates an air infection. This theory has not been experimentally established, although Büchner reports malaria communicated by a bed-fellow.

Gerhardt says that it can be inoculated from man to man. Schellong reports his own, an assistant's and nurse's, infection from a patient attended by him. A lately returned Cuban soldier, who lay sick with supposed typhoid fever in the flat beneath, may have been the unknown carrier of the malarial protozoon to my patient.

Holt says: "The clinical forms of malarial fever in children from six to ten years old, do not differ materially from the

same disease in adults." The age of my patient, six years upon the border line, thus accounts for the atypic disease process. From the small size, lack of pigment except in a few intracorpuseular bodies and (but one examination showed the organism), we concluded that the quotidian variety obtained.

According to Billings a post febrile leucocytosis in malaria is a phagocytosis.

The form of pulmonary involvement was very perplexing. Since the malarial paroxysms were not severe, localized pulmonary congestion such as accompanies violent attacks in adults, was excluded.

The limitation of the physical signs to a small area of consolidation and unimportant symptomatology lead to the thought of a possible parasitic pulmonic invasion through sporular inspiration. The onset of the disease pointed unquestionably to respiratory involvement.

Bronchitis is recognized as an occasionally sole symptom of malaria.

Müller, of Warburg, mentions cough, bloody expectoration in a great number of fever and ague patients during a severe epidemic in 1894. Other than bronchitic rales no pathologic signs were present in his series of cases. Osler writes: "It was formerly believed that an especial form of pneumonia was caused by the malarial poison. This idea is now exploded by the Italian observers who have proved by bacteriological examination that as in other forms of pneumonia, the micrococcus lancetolatus is present."

Ed. Maragliano, very recently declared that "The pneumonic or typhoid assumption of character is due to the fact of nervous circulatory disturbances giving the appearance of a localization of the inflammatory process that really does not exist."

This hypothesis seems to apply to my case, but numerous questions are not yet settled.

BIBLIOGRAPHY.

Ed Maragliano's in *Handbuch der Therapie der Infectious Krankheiten*, 1897 p. 451.

Wm. Osler's Text Book on the Practice of Medicine.

A. Starr's Text Book on Diseases of Infancy and Childhood.

A. Jacobi's Text Book on Therapeutics of Infancy and Childhood.

C. Jakob's Text Book on Internal Medical and Clinical Diagnosis.

L. E. Holt's Text Book on Diseases of Infancy and Childhood.

O. Vierordt's Text Book on Medical Diagnosis.

H. Eichhorst's Handbuch der Speciellen Pathologie und Therapie.

Strumpell's Text Book on Medicine.

C. Flügge, Die Mikroorganismen, '96 p. 667.

Von Hecusinger, Abstract from Kinderarzt, '91.

I. H. Boyd, An Interesting Case of Malarial Cachexia.

Medical and Surgical Report. Philadelphia, '98-LXXVIII, 140-143.

F. M. Crandall, Malarial Fever in Infants and Children.

International Clinic, Philadelphia, '99-130-137.

W. S. Dowd, Mosquitoes and Malaria.

Medical Record, New York, '98, LIV-p. 537.

THE TREATMENT OF CHRONIC MALARIA.

BY J. B. MAXWELL, B. S., M. D., MT. CARMEL.

Mt. Carmel is situated on a high bluff on the right bank of the Wabash River. It has splendid natural drainage and is a healthful city. The White River empties into the Wabash just opposite Mt. Carmel, separating Gibson and Knox counties, Indiana. On the Indiana side the bottoms extend out from the river in irregular width from three to eight miles. This territory is occupied largely by tenants, who come to Mt. Carmel for medical attention. They are a changeful and somewhat unreliable people although there are notable exceptions, and altogether not a very de-

sirable kind of people to practice among. It therefore happens that they fall into the hands of the newer doctors, so when I began practice in Mt. Carmel some ten years ago, I soon had an extensive practice in this region. The country is new and low and undrained, bogs, ponds and marshes abound. An ideal place for malaria and there it is found in all forms. It is especially severe on children. To illustrate, let me give the history of a case or two. Mr. P. had a child eighteen months old; had a chill September 18th. Light chill nor a high fever. They had no medicine in the house and so next morning the father started to town to get some, and left the child up and playing a little. At nine o'clock he came to my office, told me the facts as above stated, got the medicine and started home and met a neighbor coming for him, who told him the child was dead. It had taken a malignant chill after his departure and in three hours was dead.

Another; I was passing a house one Sunday morning, the last of August, Mr. H. P. stopped me. He lived back in the woods a quarter of a mile or more. He told me his babe, eleven months old was having chills; had several light ones and that this was the chill day. I gave him some calomel powders and bromides; some syrup of quinine to be given as fever abated that night. He did not think it necessary for me to see the child, neither did I from what he told me. This was about eleven o'clock in the forenoon. He went home and found the child with a chill. Before sun down the child was dead. So it goes.

Quinine will nearly always break up an attack of chills, but in a week or two at furthest, they will be back. It is not an unusual thing to have a man come to you and say, "I have had chills, I can break them, but I cannot keep them off," or "Dr. so and so can break them but he cannot keep them off." He says "that I've got to get out of the bottoms or I will die." Often this is impossible without great sac-

rifice and often entirely impossible. I therefore was anxious to find a remedy to cure and let the patient remain in the same locality. I tried many remedies before I found the one that was a sure cure. Theoretically this treatment for a grown person ought to be all right:

R Hydrarg. Chlor. Mite.
Sodii Bi-carb. aa grs. 10.
M. S.

at bed time.

R Quinine Sulph. grs. xx.
Fiat capsulæ No. IV.
Signa.

Two hours apart, the last dose 12 hours before chill time.

Then

R Elix. Quin. Strych. et Ferri oz. IV.
Signa.

Teaspoonful three times daily. But it don't do in practice. A certain per cent. of the patients will have chills while taking the medicine right along.

Finally I stumbled upon this, to be used as a tonic after the calomel and quinine had been given as above and to my surprise and gratification I had no relapses.

R Quinine Sulph. dr. 1.
Acidi Nit. Dil. dr. 11ss.
Spts. Frumenti oz. IV.
M. S.

Teaspoonful just before eating, three times daily.

It is necessary to tell the patient that the cause of the disease is continuous and therefore the remedy must be continuous also. This remedy has one fault, it is bitter and bad to take.

That can be largely overcome by having it taken just before eating, and in these chronic malarial cases the patient usually comes to the conclusion that he would rather take anything than to have the chills.

I have rarely found a patient that refused to take the medicine.

It is just as certain in its action with children as with adults, but owing to the bad taste I have often administered Syr. of Quinine, teaspoonful every hour for

three doses, then half teaspoonful three times daily. This is so pleasant that most children take it readily and answers most admirably for them. This preparation is said to contain 2 grs. of Amorphous Quinine to the dram, in syrup and aromatics. It is a very pleasant and effective preparation and ought to be made officinal and no doubt will be in the next dispensatory. It is not so good for adults for two reasons. First, because it sometimes fails to cure, and second, because of the cost.

The prescription given above, containing the spirits, is the most admirable thing I have ever tried. The improvement in a case of chronic malaria existing from week to week will be so marked as to surprise both patient and physician. You can assure your patient in the most dogmatic manner that this medicine will cure him, and I have yet to find the case where it did not do it.

TREATMENT OF ACUTE TONSILITIS.—

Cleanse the tonsils as far as possible with a swab, then direct into each crypt a blast of air through a fine tube, to blow out organisms, etc. (The Medical Summary). Next spray the crypts with 1000 to 3000 sublimate solution, and finally paint the tonsil with nitrate of silver, 40 grains to the ounce of water. Iodine is not to be recommended in acute stages.

Kramer employs parenchymatous injections of carbolic acid in severe tonsillitis, particularly where it is thought that there is a tendency to abscess formation. The part is made completely anesthetic by cocaine, a sterilized needle attached to a Pravaz syringe gently introduced into the gland, and through this is injected from 7. to 15 minims of a two to three per cent. solution of carbolic acid. This may be repeated once or twice a day.

Eighteen practitioners from Illinois were matriculated at the Post Graduate Medical School and Hospital, New York, during 1898-1899.

TRANSACTIONS OF
THE ILLINOIS STATE MEDICAL
SOCIETY.

PROCEEDINGS OF THE FORTY-NINTH
ANNUAL MEETING

HELD AT
CAIRO, ILLINOIS, MAY 16, 17 AND 18, 1898.

Dr. E. P. Cook: I desire to state for the benefit, of those who were not present yesterday morning, that the Treasurer of this Society, Dr. Kreider, presented a report in which those who were present were very much interested in relation to journalizing the transactions of this Society. A committee was appointed, and we are prepared to report this morning. With but little time at our disposal, we have given the subject as much thought as possible and present this as a result of our conference. Let me say, that this is not a new subject. It has been a subject of conversation between the members for some time, but I believe it is the first time it has been presented on the floor of the Society.

We respectfully recommend that the method of publishing the transactions, as heretofore adopted, be changed, and that they be journalized. The issue of the Journal to begin on the 1st of July, 1899, and thereafter on the first of each month, and to be designated as "The Journal of the Illinois State Medical Society;" that the cost of its publication for the year shall not exceed the income of the Society, less other necessary expenses; that the compensation of the Permanent Secretary, who shall be the editor, shall be \$. . . You understand, the Secretary receives the sum of \$200.00 per annum for the work he does. If the Society should decide for the coming year to try the experiment of journalizing its transactions, the amount should be increased. We have made some inquiry in regard to the probable amount necessary to make this increase and find it to be about \$200.00 additional. This is briefly the report of your committee.

Permit me to make this remark in con-

nection with the report. Your committee have carefully considered this matter, and feel that it is of such great importance that we should not act too hastily, but we believe that it is in the interest of the medical profession of the State, as represented in the Society, for several reasons. You all understand very well, that three or four, sometimes five or six months, have elapsed before we have received the annual volume of transactions, and upon its receipt it is placed upon our library shelf. Occasionally it is referred to. Now, the Journal would be a live, active periodical which will bring the profession of the State in contact with the Society as never before. It would open a means of communication between the members of the Society. It is believed that its circulation will go far beyond the membership of the State Society. I might say, too, it has been thought wise to present, or prepare something to present, contemplating a change in the constitution, to be acted upon by the Society-favorably or not, changing the character of the membership. All these are matters you have to think of. Of course, we have a feeling of antagonism toward this movement, especially on the part of those who are interested in medical journals, and some of you will say we have too many journals now. We want better journals and fewer journals; but this is not a journal that goes out into the journal world like other medical journals. It is somewhat akin to the journal of the American Medical Association. I hope the members of the Society will feel that this matter is sufficiently important to consider wisely before final action is taken on it.

Dr. Wallace: I move that we make this report a special order for to-morrow morning at 8:30.

Dr. Brower: I second the motion.

Dr. Cook: I do not think it would be prudent to postpone this matter until to-morrow morning, for the reason that the attendance will undoubtedly be small, and it seems to me it would be better to either act upon it now or have it laid on the table.

Dr. O. B. Will: As Dr. Cook wisely remarks, this subject is of such great importance that it needs considerable discussion. There are several sides to the question, and if we undertake a discussion of it now, I am confident we will do nothing else this forenoon, at all events. Therefore, I move, as an amendment to the motion, to lay the matter on the table for one year. Seconded.

Dr. Weller Van Hook: This matter is so important that we ought not to postpone its consideration for a year. I therefore move, as a substitute, if accepted by the gentleman who made the motion, that the matter be left in the hands of the Judicial Council, with power to act. Seconded.

Dr. John H. Hollister: I am in favor of the amendment to the motion, for the reason that the Judicial Council, composed as it is of able men, would be eminently wise in their decision in regard to this matter. Then, too, if this subject is postponed until to-morrow morning, during the interval so many members will withdraw that the others will hardly feel like assuming the responsibility, and they would rather put it off for a year than to do this. The experience in the State of Pennsylvania with its Journal and others, notably the Journal of the American Medical Association, has been such that it seems to me the time has come when we might venture to publish such a journal, if the Judicial Council should conclude to try the experiment for a year. It cannot commit the Society to anything permanently; it may give us advantages. I am in favor of the substitute offered by Dr. Van Hook.

Dr. Hugh T. Patrick: Mr. President, can we vote on the substitute of Dr. Van Hook?

The President: Yes, we can adopt the substitute, if it is accepted by the mover of the amendment.

Dr. Will: I accept the substitute.

Dr. J. W. Pettit: To postpone action on this matter for one year is equivalent to laying it on the table.

The substitute was then put and carried.

Dr. E. P. Cook presented a report with

reference to the Rush Monument Fund, stating that up to the present time no money has been collected, and on motion of Dr. Brower, the report was accepted, and the committee continued with power to act.

Dr. J. Homer Coulter: I wish to offer the following:

Resolved, That hereafter all members whose names appear on the program of the regular meetings of this Society, who may be unable to attend such meetings, shall forward to the Secretary a typewritten copy of the papers so announced upon said program; be it further

Resolved, That failure to so remit such papers to the Secretary, by the time of the annual meeting, shall result in the disbarment of such members from the program of the Illinois State Medical Society for three years next succeeding the meeting at which such offense was committed.

The resolutions were seconded and voted down.

Dr. Hugh T. Patrick: Your Auditing Committee, appointed yesterday by the chairman to go over the accounts of the Legislative Committee, beg leave to make this report:

The receipts of the committee amounted to \$676.14. There is still due the committee, and which they can collect from medical societies, \$100.00, making a total of \$776.14. They have expended \$662.51, leaving a balance in their favor, part of which is not in their hands but obtainable, of \$113.63. Furthermore, this committee has incurred an indebtedness of \$600.00, and after deducting the amount due them from medical societies, it still leaves them in debt to the amount of \$486.37. We have received a full accounting from the committee for every item. We have not thought it desirable to report all of the items in this account. Furthermore, for this indebtedness of \$486.37 the members of the committee find it necessary to make themselves personally responsible, and unless it is met by medical societies or other individuals, they will have to meet it. Most

of the members of the Society are aware of the indefatigable industry of this committee, and of the tremendous amount of work they have done, and they know pretty well the result, which is not, of course, ideal. I do not suppose that any member of either the Society or of that committee considers the result ideal. But the members of this committee have worked faithfully, energetically and conscientiously in this matter. This indebtedness is marvelously small when we consider the devious ways of modern legislation. It has seemed to your Auditing Committee that with the aid of the State Board of Health this Society has really developed a genius for economy in legislation. Your Auditing Committee, therefore, has instructed me to move that the State Society appropriate \$200.00 to assist in defraying this indebtedness, and that the committee be empowered or instructed to raise the balance of this indebtedness from other medical associations, which we believe they can do.

Dr. Daniel R. Brower: I move the adoption of the report of this committee. Seconded and carried.

The President: I will now ask you to vote on the appropriation of \$200.00 to assist in defraying the deficit stated.

It was then moved and seconded that the Society appropriate \$200.00 towards defraying the indebtedness of the Committee on Medical Legislation. Carried.

At this juncture Section 2 was called to order by the chairman, Dr. Weller Van Hook, of Chicago; Secretary, Dr. E. M. Sutton, of Peoria.

SECTION 2—FIRST SESSION.

Dr. Denslow Lewis, of Chicago, delivered the address of this section, entitled "Surgery of the Puerperium."

Dr. Bertha Van Hoosen, of Chicago, read a paper on "Puerperal Surgery."

The address of Dr. Lewis and the paper of Dr. Van Hoosen were discussed jointly by Drs. Lewis (Henry F.), Ochsner, Caldwell, Harris, Wilson, Chapman, Allaben, and the discussion closed by Dr. Lewis.

Dr. Carl E. Black, of Jacksonville, read a paper entitled "A Case of Vesicular Mole," which was discussed by Drs. Wallace and Wagner.

Dr. H. McKennan, of Paris, read a paper entitled "Observations on Symphysiotomy," and reported two cases.

Discussed by Dr. Hollister.

Dr. Charles B. Reed, of Chicago, read a paper on "The Causation and Pathology of Eclampsia."

Dr. Henry F. Lewis, of Chicago, read a paper on "Maternal Impressions."

This paper was discussed by Drs. Hollister, Sudduth, Van Hoosen, and in closing by the essayist.

Dr. William H. Wilder, of Chicago, read a paper on "Malignant Tumors of the Eye," and exhibited several specimens.

On motion, the Society adjourned until 1:30 P. M.

SECOND DAY—AFTERNOON SESSION.

The Society reassembled at 1:30 P. M., and was called to order by the First Vice-President, Dr. Moyer, of Chicago.

The Secretary announced the members of the Nominating Committee, as follows:

COUNTY MEDICAL SOCIETIES.

Adams County Medical Society, Dr. J. Robbins.

Bond County Medical Society, Dr. Geo. C. Baker.

Champaign County Medical Society, Dr. J. C. Harmon.

Clinton County Medical Society, Dr. T. Gaffner.

Crawford County Medical Society, Dr. C. Barlow.

LaSalle County Medical Society, Dr. J. F. Dicus.

Macoupin County Medical Society, Dr. A. C. Corr.

Morgan County Medical Society, Dr. Frank Norbury.

St. Clair County Medical Society, Dr. J. O. DeCourcy.

Tri-County Medical Society, Dr. S. M. Wiley.

Warren County Medical Society, Dr. F. E. Wallus.

Wabash County Medical Society, Dr. R. J. McMurray.
 Will County Medical Society, Dr. H. W. Woodruff.
 Winnebago County Medical Society, Dr. J. E. Allaben.

CITY MEDICAL SOCIETIES.

Jacksonville Medical Club, Dr. J. W. Hairgrove.
 Chicago Orthopedic Society, Dr. A. E. Halstead.
 Decatur Medical Society, Dr. Herbert C. Jones.
 Chicago Laryngolog. Society, Dr. J. H. Coulter.
 Chicago Academy of Medicine, Dr. W. X. Sudduth.
 Chicago Gynecolog. Society, Dr. M. L. Harris.
 Chicago Medical Society, Dr. A. I. Bouffleur.
 Chicago Medico-Legal Society, Dr. D. R. Brower.
 Chicago Pediatric Society, Dr. A. C. Cotton.
 Chicago Ophthal. and Otolog. Society, Dr. W. H. Wilder.
 Chicago Pathological Society, Dr. H. F. Lewis.
 Ottawa City Medical Society, Dr. J. W. Pettit.
 Peoria City Medical Society, Dr. O. B. Will.
 Chicago Neurological Society, Dr. H. T. Patrick.
 Chicago Society of Internal Medicine, Dr. J. H. Hollister.
 Chicago Physicians' Club, Dr. A. R. Elliot.
 Chicago Society of Medical Examiners, Dr. Denslow Lewis.
 Chicago Therapeutic Club, Dr. George F. Butler.
 North Chicago Medical Society, Dr. Carl Wagner.
 County Hospital Alumni Society, Dr. W. Van Hook.

DISTRICT MEDICAL SOCIETIES.

Aesculapian Society Wabash Valley, Dr. J. A. Baughman.
 Brainard District Medical Society, Dr. C. E. Black.
 District Medical Society Central Illinois, Dr. T. A. McTaggart.
 Galva District Medical Society, Dr. C. W. Hall.
 Medical and Surgical Society Western Illinois, Dr. H. W. Chapman.
 N. Central Illinois Medical Association, Dr. E. P. Cook.
 Rock River Valley Medical Society, Dr. C. C. Hunt.
 Southern Illinois Medical Association, Dr. J. T. McAnally.
 Twin City Clin. Association, Champaign and Urbana, Dr. C. B. Johnson.

[CONTINUED NEXT MONTH.]

QUININE IN LEUCORRHEA.—R. S. Miller, (Med. Rev. of Rev.), states that he has used muriate of quinine as a topical application in these cases for the past eight or nine years. He states that the results obtained in granular erosions of the cervix, septic endometritis, and all forms of vaginitis are most favorable. It is non-irritating and may be employed in the form of a suppository. These suppositories may contain from three to five grains of the salt and keep up a prolonged local antiseptic and astringent action, which exercises a most favorable influence upon the inflamed and congested mucous membranes.

"How is your father, Bridget," inquired the faith-cure convert of her servant, who had applied for leave of absence.

"Indade, Mum, he is very bad, cryin' the whole nite tru wid de rheumatism in his back."

"Rheumatism! Why there is no such thing as rheumatism. Go home and tell him he just thinks he has that disease."

A week later Bridget re-appears. "Well, Bridget, how is your father now?"

"Sure, Mum, he must tink he is dead fer we buried im yesterday."

The Illinois Medical Journal

PUBLISHED MONTHLY.

Official Organ of the Illinois State Medical Society.

Committee on Publication:

E. W. WEIS, M. D., Chairman, Ottawa.
H. N. MOYER, M. D., Chicago.
G. N. KREIDER, M. D., Springfield.

All communications should be addressed to E. W. WEIS, Secretary, Ottawa, Ill.

All remittances for subscriptions should be sent to Dr. G. N. Kreider, 522 Capitol Ave., Springfield, Ill.

The Society does not assume responsibility for any statements or opinions published in this journal.

Entered at the Postoffice at Springfield, Ill., as second-class matter.

Springfield, Ill., September, 1899.

FAITH HEALING.

The determination of the State Board of Health to prosecute Mrs. Bratz, a faith healer of Chicago, will meet with the approbation of every physician in this State. As we understand it, she is to be prosecuted as practicing midwifery without a license and it is probable that she will be punished. It is unfortunate, however, that the question of faith healing cannot arise in this case, so that the question can be determined whether faith healers, Christian Scientists, etc., are exercising a religious rite or (are they) practicing medicine? The reason why the provision in Section VII exempting "any person who ministers to, or treats the sick and suffering by mental or spiritual means, without the use of any drug or material remedy" was allowed, was because high legal authority had insisted that Christian Scientists exercised a religious rite and therefore the legislature had no power to pass any law to prohibit such exercise.

In view of the fact of so many deaths occurring in this country at the present time, through the ministrations of the

faith healers, Christian Scientists, etc., of cases where it is stated they would have gotten well by ordinary treatment, it occurs to us that this is a practice inconsistent with the safety of the public. This being true, even the practice of faith healing and all its phases, is a violation of the Constitution of this State, for Section III of the Constitution says, "The free exercise to religious practices and relationship without discrimination, shall forever be guaranteed; * * * but the liberty of conscience hereby secured shall not * * * excuse acts of licentiousness or justify practices inconsistent with the peace or safety of the State." To threaten the safety of an individual, is threatening the safety of the State and we believe that the Supreme Court will so hold. Whether so held or not, it can scarcely be questioned in the minds of right-thinking people that when faith healers go to the bedside of a patient and treat him spiritually for a dollar a prayer and treatment, doing so indefinitely, that they are not exercising a religious rite, but are practicing the art of healing, the province of the physician, and in so doing they should be made amenable to the laws governing physicians in general. That the legislature has the power to prescribe regulations for physicians and for all who exercise the art of healing cannot be questioned, for that is the law of the State. The following is taken from the Illinois Reports, Volume 121, page 87: "It is the common exercise of legislative power to prescribe regulations for securing the admission of qualified persons to professions and callings demanding skill, and nowhere is this undoubtedly valid exercise of the police power of the State more wise and salutary, and more imperiously called for, than in

the case of the practice of medicine: It concerns the preservation of the health and lives of the people," and the people are the State.

The indignation that has naturally been aroused by the recent cases of deaths occurring where ordinary and simple measures might have continued to the State a member thereof, ought to produce such a wave of popular indignation that this part of the section will be repealed by the next legislature, and in its place make this class subject to the acts and penalties regulating the practice of medicine.

* * *

Since the above was written the Attorney General of the State of Indiana has rendered an opinion from which the following is quoted:

"It is my opinion that it is a violation of the law for an unlicensed person assuming the title of a doctor to prescribe or pursue any practices for the cure or relief of diseases, injury, or deformity, especially where any fee is charged for such services.

"It is perfectly obvious that the non-treatment of a disease requiring treatment by an unqualified person may be as injurious as the administering of erroneous treatment or remedies.

* * *

"In so far then, as Christian Scientists, faith curists, mental healers, and metaphysical medicators advertise themselves as physicians and accept fees for treating disease, by silent or other forms of prayers, or by moral advice, or by profound thought, or by absolute non-action, they unquestionably, in my opinion, violate the law."

This fully bears out our contention.

W.

FAITH HEALING AND THE LAW.

One of the most obnoxious of the faith healers, whose satellites have been administering material remedies to relieve a woman afflicted with blood poisoning, has given rise to the following sensible editorial in the Chicago Record.

"The temporal authorities have nothing to do with any question of religious belief as regards Dowie's "Zion" establishment. But there is an Illinois statute forbidding the practice of medicine by unlicensed persons and the authorities ought to see that it is strictly enforced against all manner of alleged faith-healers.

Dowie may, or may not cure a greater proportion of his patients than a regular physician does. That has nothing to do with the case, which is purely one of statute law. The law regulating the practice of medicine is the result of a long experience. It embodies public opinion. The legislature believed, and the mass of people believe, it is for the public good that the care of sick persons should be left to men and women who have received special scientific training for that purpose. It is useless to point to the mistakes and failures of licensed physicians; the average experience still shows that such physicians are, in the main the safest ministers to the sick.

It is doubtful whether the law applies to cases of attempted healing by prayer or by "mental influence" or like methods. But when the "divine healer" attempts to minister to his patient physically, he plainly comes within the inhibition of the law, and there ought to be no hesitancy about dealing with him as a law-breaker."

There will be a merry time in suppressing John Alexander Dowie, who is the chief overseer of the Christian Catholic Church. The "Rev." Dowie is not a meek

and lowly disciple of the Lord and Master, but he is the overseer, or in other words, boss of the church. He does not go around arrayed in sack-cloth and ashes, but, on the contrary, broadcloth, immaculate linen, a flowing beard and a bald head. Dowie is always being "attacked" and instead of turning the other cheek, according to the Scriptural injunction, he proceeds to strike out with both hands and both feet, in support of the "Overseer."

After the recent coroner's investigation which attracted much attention in the public press, Dr. Dowie distributed throughout Chicago a small hand bill, in one corner of which was a picture of Zion tabernacle and in another a picture of the boss, arrayed in evening costume, low cut vest, and claw hammer coat, standing by the side of an onyx table. That he does not lack vigor of language, is shown by the title of his address for the succeeding Sunday evening, which was "New persecution by the associated liars of the press and the murderous hordes of doctors in the courts."

It is currently reported that Dowie's income is larger than that of any minister of the Christian church. Perhaps this is his due as an "overseer" and "boss," but it also shows the profit of the spiritual business in these later years.

M.

Correspondence.

The importance of the relations existing between the Illinois State Medical Society, its legislative committee and the State Board of Health, are not properly understood and appreciated by the profession of the State, or even by the membership of the Society itself.

It is quite certain that a want of an un-

derstanding and a proper appreciation of these relations and the responsibility in the case on the part of the profession, especially of the membership, was a great source of embarrassment to the legislative committee when before the last legislature, the past session, striving to procure an improvement in the law, regulating the practice of medicine. Indeed, in a large sense, the profession, at least the members of the Society that created the committee, seemed to become demoralized and disposed to abandon the committee without any kind of support, and to disregard every obligation in the matter, as though the committee was a self-constituted expedition, instead of a detailed picket guard ordered and posted by the main army.

Being conscious of these facts and hoping to forestall the possibility of its occurring again, I desire to call the attention of the profession of the State and especially of the membership of the Society, to the very intimate and responsible character of the relationship existing between the Society, its legislative committee, the State Board of Health and their common origin, so that each member may be brought to feel that he cannot lightly regard the claims of the legislative committee and the Board, entrusted and burdened as they are with the work made incumbent on them by the Society. Indeed, both are creatures of the State Society and ought ever to have its individual support, and interested co-operation and its jealous guidance.

Prior to 1877, the practice of medicine in the State was not regulated nor subject to any control and there was no Sanitary Board. In 1850, when the Illinois State Medical Society was organized, it adopted a preamble to its constitution and by-laws, setting forth certain aims, objects and ambitions that were designed to be accomplished by the organization of the Society, as follows:

"The objects are, the organization of the profession of the State for its united influence on questions pertaining to *public char-*

ities, *State asylums* and other institutions, and on all questions of a medical, sanitary, charitable or educational nature, and the *procuring* of such *legislation* as will reflect the views and aims of the medical profession in relation thereto; and, also to promote those scientific, social and professional interests for which medical societies are usually organized."

The progress of the Society in the meantime, was largely that of the consideration of more scientific topics, and development in the gathering strength for more decisive work, till 1874, when on motion of Dr. J. H. Hollister, Drs. L. P. Pierce, E. P. Cook and J. L. White were appointed a *temporary* legislative committee to "*procure legislation*" and an appropriation to establish the institution for the feeble minded.

Two years later, in 1876, on motion of Dr. S. H. Birney, a *temporary* legislative committee was appointed, for the purpose of *procuring a law creating a State Board of Health*, and one *regulating the practice of medicine* in the State. That committee consisted of Drs. E. W. Gray, of Bloomington; W. M. Chambers, of Charleston; S. H. Birney, of Urbana; Wm. Massa, of Paris; and B. F. Haller, of Vandalia.

This very influential committee, together with the aid of the membership of the Society, *procured* the desired legislation, which went into effect July 1, 1877.

Please note the origin of the State Board of Health.

In 1879, a *temporary legislative committee* was appointed at the suggestion of Dr. E. P. Cook to procure an amendment to the act for the commitment of the insane.

Thus far, all legislation was procured by the work of temporary legislative committees, of which I have not given all the instances.

In 1881, the necessities of a legislative committee took a more definite advance, when Dr. G. Wheeler Jones, of Danville, recommended in his presidential address, that the legislative committee be made one

of the regular standing committees of the Society, so as to be ever ready by vigilance and organization to procure whatever legislation seemed necessary and desirable. This committee as first organized consisted of Drs. McClellan, Booth, Hill, Grusdale and Ingals, and with some variation as to complexion and numbers, has been on duty ever since.

The work of the past year and before the last session of the legislature, has been of such importance in the procurement of a new and better law, regulating the practice of medicine in the State, that I hope the names of J. W. Pettit, of Ottawa; H. N. Moyer, of Chicago, and G. N. Kreider, of Springfield, may be enshrined with those of Gray, Chambers, Birney, Massa and Haller in the history of legislation, regulating the practice of medicine in the State.

In Section II, of the law creating the Board of Health its powers and scope of application are defined as follows: "The Board shall have general supervision of the interests of the health and life of the citizens of the State. Shall have charge of all matters pertaining to quarantine and shall have authority to make such rules and regulations and such sanitary investigations as it may from time to time deem necessary."

Co-incident with the enactment of the law creating a Board of Health with the above defined powers, was at the instance of the committee, once procured, regulating the practice of medicine to the effect that no one should practice medicine in the State without giving ample evidence of possessing, at least, a minimum qualification. Thus the Illinois State Medical Society with its scientific sections, its legislative committee, its Board of Health and requisite laws, is well equipped to carry into effect the designs of its organization as set forth in its preamble.

The point I desire to make is, that the organized profession through its State Medical Society in creating resources and

processes of work has created great obligations and responsibilities.

When it made its legislative committee, designed to procure sanitary legislation as suggested in the preamble, it made itself and every affiliating and auxiliary Society and their entire membership responsible, and under obligation to that committee while working in the line of the purposes of its creation, and under moral obligation to give whatever support is needed to meet the exigencies that may arise.

In the instance referred to, the Committee was instructed more than two years ago to procure a change in the law regulating the practice of medicine, so that it would more perfectly accomplish the desires of the State Society. The committee formulated a bill and presented it to the Society, and it was discussed and the committee was instructed to go to the legislature and procure its passage. Thereby the Society and its membership, through its affiliations and auxiliaries were committed to the support of the Committee and the results of its work. When the committee procured the introduction of the bill, it virtually passed from its hands, except as a mere advisory committee, in which relations it was bound to consent to certain amendments or to accept the bill's ultimate defeat, in which circumstance the committee alone had the right to accept amendments and to press its passage, in the interest of the parent Society. While acting in this capacity it should have had the undivided and willing support of every member of the Society and all its auxiliaries.

The legislative committee ought to be made to feel when it goes into the field to "procure legislation" or prevent legislation, that it has the support of the whole organized profession of the State. The committee may be called, required to report and be reinstructed at any time, but in default of that, the profession is morally bound to support it and commend its efforts, whatever the result may be, and I believe I voice the sentiment of the com-

mittee, when I say it is hoped that the profession at large and the membership of the Society at least, will so consider their relation to their regularly constituted legislative committee in the future, especially when it is in the field at its post before the people or the legislature.

Of the inter-dependent relations between the State Board of Health and the State Medical Society, I regret that they have been such as to occasion any remark, but certain it is, that for a great part of the time since the Society procured the law, creating the Board and the coincident-laws enforcing it to control "public charities," "State asylums," and "sanitation," and to "regulate the practice of medicine in the State," the two have tended toward alienation, and the State Society has not to any extent been regarded as an organization to which it owed any allegiance, nor has the State Society kept its companionship with the Board of such a nature that it would suggest the appointment of any of its members.

This condition had advanced to such a point that in the appointment of one of the Boards, the selection with one exception of the *five* that are usually appointed from the regular profession but one had ever been identified with the progressive element of the profession by being a member of the State organization that instigated and originated the Board and the proper relations were almost lost, and the original designs of the Society were not strictly adhered to, and the Board was not executing some of the laws for which it was created.

The Board of Health with its attendant laws were created by the State Society through its legislative committee and is by far the most important part of its instruments for the carrying into effect its *aims* and *hopes* as declared by its preamble. For that reason its control by the Society ought never to have been so nearly relinquished under any circumstances, and the egotism of the Board in seeking such relinquishment ought to be rebuked. It

may be said that the Governor makes the appointments, but also may it be said that the doctors help make the Governor, and they as members of the State Society made the Board and the laws by which its appointment is authorized. Certainly, if proper steps are taken by the organized profession these appointments need, only nominally be made by the Governor, and by the State Society through the legislative or some other appropriate committee be kept amenable to the power that created it.

The State Medical Society knows better how to accomplish its designs, as set forth in its preamble and the laws creating the Board and regulating the practice, than does the legislature or the Governor, hence it ought never to allow its hold on and control of the Board to be weakened, but rather set about to strengthen and harmonize the relations in order to better maintain the united influence on questions pertaining to public charities, state asylums and other institutions and on all questions of a medical, sanitary or educational nature, and the procuring of such legislation as will reflect the views and aims of the profession.

A. C. Corr, M. D.

Carlinville.

State Items.

Dr. C. M. Craig, of Tolono, is in Europe.

Dr. Wilson, Quincy, is visiting in California.

Dr. W. F. Burres, of Sidney, is doing post-graduate work in Europe.

J. N. Hall, M. D., New Philadelphia, Ill., aged 85 years, died July 28.

Chief Medical Inspector Spalding says Chicago is now entirely clear of small-pox.

Dr. Thomas Wagner has opened an office in Joliet, as has also Dr. H. H. Smith.

Dr. Chas. W. Cram, of Moline, was accidentally killed by falling from a step-ladder.

Dr. R. J. Christie, Sr., and wife, Quincy, are spending the summer in California.

The engagement of Miss Florence Berry to Dr. W. H. Baker, Quincy, has been announced.

Dr. Morris, of the Northwestern class '99, has been appointed interne at Silver Cross Hospital at Joliet.

Dr. C. E. Whiteside, of Moline, has been appointed assistant surgeon of the Sixth Infantry, I. N. G.

Dr. and Mrs. Henry Hatch, Quincy, have gone to Mackinac, Mich., to spend the balance of the summer.

Drs. W. B. Stewart and G. M. Peairs, Joliet, attended the meeting of the Railway Surgeons at Richmond, Va.

Dr. Harry Patterson has returned from the Klondike, where he spent last year, and is now engaged in active practice in Joliet.

Fire in the pathologic laboratory of the Kankakee (Ill.) Hospital for the Insane, July 20, destroyed many valuable specimens.

Major Clendenin, of the medical department of the United States army, formerly of Chicago, died of yellow fever at Santiago.

Dr. William Allen Pusey, the secretary of the College of Physicians and Surgeons,

has left for an extended tour through Europe.

Dr. Taylor moves from Curran to Buffalo.

Dr. E. S. Spindel has located in Springfield.

Dr. Geo. Scheib has located in Edinburg.

Dr. McMahon has moved from Palmyra to Niantic.

Dr. C. A. Palmer is mayor of Princeton, Bureau county.

Dr. C. C. Cochran, of Curran, has located in Hamilton.

Dr. Geo. W. Ryan, of Niantic, Macon county, died recently.

Dr. L. P. Rogers, of Buffalo, goes to Beatrice, Neb., as agent of Lord Scully.

Dr. Walter Ryan, of Springfield, is in Harbor Point, Mich., for the benefit of his health.

Dr. Gillett, of Beatrice, Neb., for many years a practitioner at Buffalo, Ill., died recently.

Dr. Estelle Paulin, of Springfield, sailed Aug. 19 for Europe, accompanied by Dr. Frederika Teller, of Peoria.

Dr. Norval H. Pierce, Chicago, sailed from New York, July 26, to attend the International Congress of Otologists, in London.

Dr. Wm. L. Ballinger sailed from Montreal on July 20 for London. He attended the International Congress of Otologists, Aug. 8 to 12. He will also make a brief tour of the continent.

The first examinations under the new practice act of Illinois were held in Chicago Aug. 1 to 4. Thirty-four appeared for examination; five physicians, fifteen midwives and fourteen osteopaths.

Private telephone lines for the convenience of patrons have been erected by several physicians in central Illinois. Dr. J. W. D. Mayes, of Illiopolis, has a line to Mt. Auburn and Niantic, and Drs. Miligan and Stokes, of Edinburg, have lines to Sharpsburg and Bolivia.

L. A. Clark, M. D., Rockford, Ill., died July 22, after a long illness. Dr. Clark was born in 1849, and during the early seventies served as surgeon on one of the Pacific steamers between California and China and Japan, and was at one time head of a smallpox hospital at San Francisco.

Mrs. Frances J. Wallace, relict of Dr. Wm. S. Wallace, died in Springfield Aug. 13, 1899, aged 82 years. Mrs. Wallace was a sister of Mrs. Abraham Lincoln, and was married to Dr. Wallace, a pioneer physician of great ability. Her husband died in 1867. Dr. Wallace was appointed a paymaster, with rank of major, during the war of the rebellion by Mr. Lincoln.

Dr. John H. Long, professor of chemistry in the medical school of Northwestern University, and Jacob A. Harmon, of Peoria, have been delegated to make a thorough examination and sanitary survey of the water resources of the state, especially of the water of the Illinois River, before the change of the Chicago drainage and sewer system is made. They will ascertain the condition of the river before and after the floodgates are opened. Stations have already been designated at Joliet, Morris, Ottawa, Bridgeport and Lockport, and collectors have been appointed.

County and District Societies.

THE "HANGING DROP." *

BY C. C. HUNT, M. D., DIXON.

The advantages of the method of examining bacteria in the "hanging drop" have long been recognized by bacteriologists, but since the discovery of Widal, that the bacilli of typhoid fever became agglutinated in the presence of the serum of blood from a typhoid fever patient, microscopic investigations through the medium of the hanging drop have received a greater significance than ever before. This method has now become an indispensable aid in the diagnosis of certain suspected cases of typhoid fever, especially of the so-called ambulatory type. Many of these suspected cases are now known to be in reality not typhoid at all, but a large percentage of them are due to the presence of micro-organisms in the alimentary canal, other than those which beget typhoid.

But the method is not unattended with technical difficulties, especially to the beginner or to those not skilled in working with high power lenses. Aside from the technique of preparing and mounting the hanging drop, the main difficulty is found in attempting to focus the objective, since organisms in the medium to be examined are almost as transparent as the medium itself. After bringing down the objective until its point dips into the oil on the cover glass, it is just then that the perplexity becomes apparent, and the perplexity is especially great in the hours of hurry on the part of the busy general practitioner. The drop cannot be found because of faulty focusing, or for the reason that it is so small and transparent that it escapes observation in a field so greatly amplified. The slide is moved to and fro, we seek and search, then the adjustment screw is turned down too far, the cover glass is

smashed and a new mount must be made. This does not always happen, but it is of frequent occurrence, and if the lense escapes injury it will be fortunate. To obviate these difficulties I hit upon a plan which I have been putting in practice for some time and find it very effective. It consists in placing a delicate film of some medium on which a culture has grown, on a cover glass, preferably by a few parallel strokes of the platinum rod at right angles to each other, gridiron-like. The film is then dried, "fixed," decolorized and again well dried, and then mounted with the drop to be examined in the center over the hollow in the slide in the usual manner. There will now be no more trouble experienced in focusing than is ordinarily met with in stained mounts, since the color left in the stained lines strikes the eye as the objective is brought down, and the focusing is then easily effected by the fine adjustment. To find the drop it is only necessary to move the slide so that the lens comes over the point at or near the center of the slide where the stained lines cross each other. The stained film in no wise interferes with the view of the organisms in the drop, since they can be seen clearly in the open spaces between the lines; on the contrary the contrast of color rather adds to the clearness of definition.

This simple expedient saves time and cover glasses and does away with no little annoyance. The same stained cover glass may be used many times if the stain is one of the best grade of the basic analin dyes.

The Tri-County Medical Society, consisting of the physicians of Vermillion, Iroquois and Ford counties, held their fifth annual meeting at Danville on July 12th. Several extremely interesting papers were presented, including the following: "Static Electricity and the X-Ray Work," by Dr. S. C. Glidden of Danville; "Cystitis," by Dr. F. M. Mason of Rossville; "Appendicitis," by Dr. Wiley of Paxton; "Inflammation of the Lachrymal Duct," by

*July meeting Fox River Valley Medical Association.

Dr. E. E. Clark of Danville. The meeting was followed by an elaborate banquet.

Addeson Philleo, 1826.
John Todd, 1827, of Kentucky.

The Champaign County Medical Society met in regular session on July 13th, in the Julia F. Burnham Hospital, Champaign, at 2:30 P. M.

The following members were present: J. C. Dodds, W. K. Newcomb, J. E. White, W. L. Gray, J. H. Finch, J. V. Champion, H. E. Cushing, W. E. Schowengerdt, R. D. Shurtz, A. S. Wall and John Laughlin. Dr. Atwood, of Paxton, was a visitor.

Papers were read by Dr. J. V. Champion on "Diabetes Mellitus," Dr. R. D. Shurtz on "Meningitis," Dr. H. E. Cushing on "Perineorrhaphy, When, How and Why," and Dr. Chas. Spears on "Eye Strain."

On motion of Dr. Cushing, the secretary was instructed to furnish the Illinois Medical Journal with reports of the Society, news of its members, etc.

John Laughlin, Secretary.

OLD PRACTITIONERS.

Dr. Henry Wohlgemuth has been practicing his profession in Springfield since 1846.

Dr. Wm. Jayne, graduate of the Missouri Medical College class of '49, is still engaged in practice in Springfield.

Mr. Z. A. Enos has made a compilation of the first settlers of Springfield and their families. Only those coming prior to the year of the deep snow, '31-'32, are mentioned. The "doctors" included in this list are:

Gershom Jayne, 1820, from New York.

Wm. Constant, 1821.

Ephram Darling, 1828.

Garret Elkin, 1823, of Kentucky.

Jas. R. Gray, 1830.

Elias H. Merriam, 1830.

Samuel C. Meredith, 1828.

Medical Miscellany.

M. Fournier, the distinguished syphilographer of Paris, recently presented a patient to the society of dermatology and syphilography afflicted with malignant syphilis, and in which mercury in every form, even in the form of calomel injections, had remained without influence on the progress of the disease.

M. Barthelemy in discussion said that in these cases injections of artificial serum had aided greatly in the treatment.

M. Fournier stated that the normal salt solution had been used in his case but without effect.

On the advice of Professor Scavo, of Sienna, Dr. Silva injected anti-diphtheritic serum directly into a vein of the neck in three cases of grave diphtheria complicated with symptoms of impending suffocation. These injections reduced the temperature rapidly and dissipated the symptoms of laryngeal stenosis by the expulsion of the false membrane.—(Med. Week.)

M. Lermoyez, at the July meeting of Medical Society of the Hospitals of Paris, stated that for several years he had attended a young girl in whom vicarious menstruation occurred through the right ear. She first menstruated three years ago and the first and all subsequent periods were through the ear. Each month regularly after prodromic symptoms consisting of pains in the head, with general lassitude, a flow of clear blood, non-coagulable, appeared by the auditory canal. No local lesion could be discovered before or after the flow. The tympanum is intact. The cutaneous vessels of the auditory canal are greatly dilated, which leads to the supposi-

that the hemorrhage is due to the rupture of a certain number of them. At the end of three years menstruation was accomplished by the genital route, and little by little tends to replace the auricular hemorrhage which now only appear every two or three months. It appears to be the manifestation of a latent hysteria as certain neurotic symptoms occur at the same time.—(Med. Week.)

A fatal case of hydrophobia in a child 3 years of age is reported from Columbia, Mo. The child was bitten June 12, and the first symptoms were noticed July 10, death occurring a few days later. Such cases are of interest as occurring at too early an age to possess the hysteric element claimed by some to be the basis of the disorder. At Ottawa, Ill., several years ago a child of 7 years also died of hydrophobia. He had been bitten by a rabid dog some two months before.

Dr. A. C. Wiener, the well known orthopedic surgeon of Chicago, has contributed to *Centralblatt für Chirurgie* an article on the use of "Fiber" for splints, supports and re-enforcement of plaster dressings. Fiber has been long in use by electricians for isolation purposes and is made up into buckets and pans for domestic use. By placing the substance in hot water it becomes soft and plastic like a piece of leather. When dry it is light and springy, and can be easily removed from a member when it is desired to practice massage. It is so non-irritating and smooth that little padding is required.

Recently a statue of Professor Charcot was unveiled with elaborate ceremonies. It stands near the entrance of Salpêtrière and not far distant from the statue erected many years before to the great reformer and necrologist, Pinel. The location of Charcot's statue was jokingly suggested by the great man himself some years before his death. On leaving the hospital one evening surrounded by his assistants

and apparently in deep thought he came to the statue of Pinel, when he suddenly stopped and said: "When I am dead, possibly a statue will be erected to my memory. If it be placed near that of Pinel we can gossip with each other nights."—Paris Correspondence German Medical Weekly.

Prof. Terrier, of Paris, thinks that extirpation never cures true cancer of the uterus, and that the numerous cases reported cured by hysterotomy are examples of errors of diagnosis. Terrier and Segond agree that it is absolutely impossible to dissect out all the lymphatics in the pelvis, and that the disease afterwards spreads from those left behind.

M. Savoir, in a paper presented to the Academy of Medicine, of Paris, declares that large doses of creosote are the most efficacious means of treating pulmonary tuberculosis. He prescribes from 6 to 10 grams per day for several months without disturbing the digestive, circulatory or urinary organs. Creosote on the contrary increases the appetite and nutrition, reduces profoundly and rapidly the pulse, fever, expectoration and sweats. Experience alone will determine how much can be given, but usually the dose given is much too small.—(Med. Week.)

The anti-vaccinationists will find food for thought if they will investigate the latest reports concerning smallpox in Germany during the last decade and a half. For the ten years previous to 1895 the average death-rate from smallpox was 116, the greater of the total number occurring in the early period of the decade. In 1895 there were 27 deaths, in 1896, 10, and in 1897, 5. In Germany the law requires vaccination and revaccination, and the law is carried out. In no other country is the value of vaccination more evident than in Germany, and in no other country is the preventive method more thoroughly carried out.

BEST TONIC FOR THE EDITORS.

Dr. W. J. Chenoweth, of Decatur, writes: I am in receipt of the first number of the Journal and heartily congratulate you on its appearance and contents.

Dr. C. C. Hunt, of Dixon: Very creditable. I like it and sincerely hope for its success.

Dr. C. E. Black, of Jacksonville: Have been intending to write you congratulations on its appearance. I believe it will be a success and a credit to yourselves and the Society. Please call on me for anything I can do to help the project along.

Dr. Hugh T. Patrick, of Chicago: If you can keep up this gait you will be very strictly "in it." I have profited by the plan which I at first opposed.

Dr. Harold N. Moyer, of Chicago, President: The first number is satisfactory in every way.

Dr. W. A. Halbert, of Salisbury: The changing of the Transactions to a monthly Journal was certainly a step in the right direction. At least it meets with my hearty approval.

Dr. H. C. Jones, of Decatur: I like the Journal very much and have read more in it already than in any of the seven or eight volumes of transactions on my shelves.

Dr. Denslow Lewis, of Chicago: The Journal is a great thing. It will help us to increase our membership materially. It seems to me it would be a good thing to let every member of the Chicago Medical Society know that he can join the State Society without red tape by paying \$3.00.

Dr. Wm. M. Hanna, of Lisbon: I think the new departure is just the thing. A Journal of the kind will be of great benefit to the medical profession of our State.

Dr. F. P. Norbury, editor of the Medical Fortnightly: The Illinois State Medical Society, at its Cairo meeting, decided to try the experiment of publishing its transactions in journal form. Two num-

bers of the journal of this society have been issued. It is tasty typographically and well edited by the Committee on Publication, viz., Drs. Edmund W. Weis, H. N. Moyer and G. N. Kreider. We feel that this journal feature will greatly add to the efficiency of the society by attracting more interest from the profession not as yet members of the society, and greatly increase the value of the transactions to those already holding membership in it. Heretofore the transactions have appeared in book form, and while their usefulness in this form is not questioned, yet, aside from the members, very few, if any other physicians profited by their publication. The journal method will certainly aid in arousing interest in the society, increasing its membership, and promoting the influence, power and progress of the profession in Illinois. The unique feature of the journal is that it contains no advertisements, and is published purely as a means of creating interest in the society, for the society and by the society. We believe, however, that this feature should not be adopted as a permanent policy of the journal, because a wider circulation, a more extended subscription list is of value to the society and the profession, the sale of advertising space will enable the journal to become a more stable publication, give it more means wherewith to extend its usefulness and be a source of revenue to the society. The *Journal of the American Medical Association* has proven to be a useful power in National medical affairs, and the *Illinois Medical Journal* can be just such a journal in State medical affairs. The *Peoria Medical Journal* in an editorial, July number, has seen fit to criticize the establishment of this journal. But why call halt, before the experiment has proven a failure, which, while possible, is not probable. The medical society which is progressive, active and alive to its opportunities is the one which wins success; it does not spend its time in personal bickerings, innuendos and criticisms, but goes to work to get the meat out of the nut.

The *Illinois Medical Journal* will help prepare the meat, and we believe the members of the society will thrive on it and have many additions to the feast from time to time. We wish the *Journal*—the innovation—and the profession success.

The following have paid dues during August:

O. B. Babcock, Springfield.
W. A. Young, Springfield.
C. S. Nelson, Springfield.
G. L. Crocker, Springfield.
C. C. Hunt, Dixon, life member.
C. A. Palmer, Princeton.
W. A. Halbert, Salisbury.
Cassius D. Wescott, Chicago.
L. D. Dunn, Moline.
Wm. M. Hanna, Lisbon.
L. A. Frost, Jacksonville.
L. R. Ryan, Galesburg

By the will of the late Robert L. Rea, Chicago, Northwestern University, Evanston, Ill., receives \$10,000 for endowment of the "Rea Professorship of Anatomy." The College of Physicians and Surgeons, Chicago, receives \$5,000.

"Of course," said the "divine healer," plying his God-given art on the public square, "Of course, I work these miracles 'without money and without price.' But you must have faith and the man who gives nothing must expect very little." At these words of wisdom the jaws of his hearers opened still wider and good money went more freely into the divine hat.

MEDICAL SOCIETIES.

STATE BOARD OF HEALTH.

C. B. Johnson, M. D., Champaign, President.
J. C. Sullivan, M. D., Cairo.
R. F. Bennett, M. D., Litchfield, Treasurer.
L. Adelsberger, M. D., Waterloo.
Florence W. Hunt, M. D., Chicago.
P. H. Wessel, M. D., Moline.

M. Meyerovitz, M. D., Chicago.

J. A. Egan, M. D., Springfield, Secretary and Executive Officer.

ADAMS COUNTY MEDICAL SOCIETY.

President, Frank E. Tull, Quincy.
First Vice-President, L. L. Gill, Quincy.
Second Vice-President, Otis Johnston, Quincy.
Secretary, W. W. Williams, Quincy.
Treasurer, L. H. A. Nickerson, Quincy.
Regular monthly meeting on second Monday, at Quincy.

AESCULAPIAN SOCIETY OF THE WABASH VALLEY.

President, J. D. Mandeville, Philo.
Vice President, J. P. Worrell, Terre Haute, Ind.
Secretary and Treasurer, H. McKennan, Paris.
Chairman of Section One, L. J. Weir, West York.
Chairman of Section Two, J. C. Dodds, Tolono.
Chairman of Section Three, Z. T. Baum, Paris.
The next meeting will be held at Paris, Oct. 26, 1899.

BRAINARD DISTRICT MEDICAL SOCIETY.

President, Dr. F. M. Coppel, Havana.
Vice President, Dr. J. A. Barnett, Lincoln.
Secretary, Dr. Katharine Miller, Lincoln.
Treasurer, Dr. Charles C. Reed, Lincoln.
Meetings held the fourth Thursday of January, April, July and October. Next meeting at Mason City.

BUREAU COUNTY MEDICAL SOCIETY.

President, Dr. F. C. Robinson, Wyand.
First Vice President, Dr. S. W. Hopkins, Walnut.
Second Vice President, Dr. B. F. Landis, Tiskilwa.
Secretary-Treasurer, Dr. E. A. Owens, Princeton.
Meet second Thursday of November and May.

CHAMPAIGN COUNTY MEDICAL SOCIETY.

President, Dr. W. F. Burres, Sidney.

Vice President, Dr. J. C. Dodds, Tolono.

Secretary and Treasurer, Dr. John Laughlin, Rantoul.

Meets monthly at Champaign.

CHICAGO MEDICAL EXAMINERS' ASSOCIATION.

President, Jas. H. Stowell.

Vice-President, Denslow Lewis.

Secretary, A. H. Brumback.

Treasurer, W. K. Harrison.

CHICAGO MEDICAL SOCIETY.

President, J. C. Hoag.

First Vice President, H. B. Favill.

Second Vice President, H. T. Patrick.

Treasurer, S. C. Plummer.

Secretary, A. R. Edwards.

CHICAGO PATHOLOGICAL SOCIETY.

President, Dr. Ludvig Hektoen.

Vice President, Dr. Emil Ries.

Treasurer, Dr. F. B. Earle.

Secretary, Dr. George H. Weaver.

CRAWFORD COUNTY MEDICAL SOCIETY.

President, Dr. W. H. Hoskinson, Trimble.

Vice President, Dr. C. H. Voorhees, Hutsonville.

Treasurer, Dr. C. Barlow, Robinson.

Secretary, John Weir, West Union.

Meetings second Thursday in July, September, November, January, March and May.

DE WITT COUNTY MEDICAL SOCIETY.

President, D. W. Edmiston, M. D., Clinton.

Secretary, John A. Tyler, M. D., Clinton.

Censors, J. M. Wilcox, M. D., Clinton; A. L. Morris, M. D., Farmer City; A. E. Campbell, M. D., Clinton.

Quarterly meetings second Tuesday in January, April, July, October.

DISTRICT MEDICAL SOCIETY OF CENTRAL ILLINOIS.

President, Dr. Baxter Haynes, Hurricane.

First Vice President, Dr. M. W. Staples, Grove City.

Second Vice President, Dr. T. J. L. Catherwood, Shelbyville.

Secretary, Dr. J. N. Nelms, Taylorville.

Meets on last Tuesday in April and October at Pana.

GALVA DISTRICT MEDICAL SOCIETY.

President, W. A. Grove, Galva.

Vice President, M. T. Ward, Toulon.

Secretary and Treasurer, C. W. Hall, Ke-wanee.

Board of Census, F. A. Guthrie, Aledo; S. Thompson, Galva; H. N. Heflin, Ke-wanee.

Meets annually at Galva the first Tuesday of May.

HANCOCK COUNTY MEDICAL SOCIETY.

President, William Boaz, Carthage.

Secretary, R. L. Casburn, Carthage.

Treasurer, Jas. H. Callahan, Carthage.

LASALLE COUNTY MEDICAL SOCIETY.

President, William G. Putney, Serena.

Vice President, G. A. Dicus, Streator.

Secretary-Treasurer, E. H. Butterfield.

Meets annually.

MACOUPIN COUNTY MEDICAL SOCIETY.

President, J. S. Collins, Carlinville.

Vice President, F. C. Barto, Plainview.

Secretary, J. P. Matthews, Carlinville.

Meetings semi-annually, third Tuesday in April and October.

MASSAC COUNTY MEDICAL SOCIETY.

President, S. J. Rhodes, Metropolis.

Treasurer, J. A. Helm, Lamotte.

Secretary, H. C. Fischer, Metropolis.

MORGAN COUNTY MEDICAL SOCIETY.

President, Dr. L. J. Harvey, Griggsville.

Vice President, Dr. J. W. Hairgrove, Jacksonville.

Treasurer, Dr. E. F. Baker, Jacksonville.

Secretary, Dr. Carl E. Black, Jacksonville.

Librarian, Dr. H. C. Campbell, Jacksonville.

Meetings held the second Tuesday of each month in Jacksonville.

NORTH CENTRAL ILLINOIS MEDICAL ASSOCIATION.

President, Dr. James Tweddale, Washburn.

First Vice President, Dr. L. G. Thompson, Lacon.

Second Vice President, Dr. F. C. Robinson, Wyand.

Secretary-Treasurer, Dr. William O. Ensign, Rutland.

Assistant Secretary, Dr. G. A. Dicus, Streator.

Meets first Tuesday in December annually. Next place of meeting, Mendota.

NORTH CHICAGO MEDICAL SOCIETY.

President, Dr. Carl Wagner.

Vice President, Dr. A. Belcham Keyes.

Secretary and Treasurer, Dr. John N. Washington.

Meetings on the first and third Mondays of every month.

OTTAWA CITY MEDICAL SOCIETY.

President, Dr. J. C. Hatheway.

Vice President, Dr. E. H. Butterfield.

Secretary, Dr. William A. Pike.

Meets monthly.

PEORIA CITY MEDICAL SOCIETY.

President, Dr. Wm. T. Sloan, Peoria.

Secretary, Dr. H. M. Sedgewick, Peoria.

The next meeting of the society will be September next, and after that it will be continued monthly, as usual.

SHELBY COUNTY MEDICAL SOCIETY.

President, Dr. Wm. J. Eddy, Shelbyville.

Secretary, Dr. A. G. Mizell, Shelbyville.

Meets annually.

SOUTHERN ILLINOIS MEDICAL ASSOCIATION.

President, J. O. DeCourey, M. D., E. St. Louis.

Secretary, C. G. Rayhill, M. D., Belleville.

Assistant Secretary, J. I. Hale, M. D., Alto Pass.

Treasurer, H. L. Gault, M. D., Sparta.

Meetings semi-annually.

THE CHICAGO ORTHOPEDIC SOCIETY.

Secretary, Dr. F. S. Coolidge.

The society meets monthly.

THE FOX RIVER VALLEY MEDICAL ASSOCIATION.

President, Dr. C. L. Smith, Aurora.

Vice President, Dr. J. E. Bumstead, Dundee.

Secretary-Treasurer, Dr. M. M. Robbins, Aurora.

Meets in May at Elgin and in November at Aurora.

THE PHYSICIAN'S CLUB, CHICAGO.

President, Dr. Wm. Allen Pusey.

Treasurer, Dr. L. Harrison Mettler.

Secretary, Dr. Wm. H. Wilder.

THE WINNEBAGO COUNTY MEDICAL SOCIETY.

President, Dr. George L. Winn, Rockford.

Vice President, Dr. T. N. Miller, Rockford.

Secretary and Treasurer, Dr. J. E. Allaben, Rockford.

Annual meeting on the second Tuesday of January of each year and other meetings monthly. All meetings held at Rockford.

TRI-COUNTY MEDICAL SOCIETY.

President, Dr. M. S. Brown, Danville.

Vice President, Dr. B. S. Euans, Watseka.

Secretary-Treasurer, Dr. Leroy Jones, Hoopeston.

Meets first Tuesday in June and December.

WARREN COUNTY MEDICAL SOCIETY.

President, Dr. E. J. Blair, Monmouth.

First Vice President, Dr. E. L. Mitchell, Roseville.

Second Vice President, Dr. J. W. Standley, Alexis.

Secretary, Dr. A. G. Patton, Monmouth.

Treasurer, Miss A. R. Nichol, Monmouth.

At the last meeting held in Monmouth, June 16 ult., the constitution was changed to provide for two meetings a year viz: the first Friday in May and November.



Next Annual Meeting —

Will be held in **Springfield** the **Third Tuesday of May**

AND TWO SUCCEEDING DAYS (Viz: 22d, 23d and 24th), 1900.

Officers and Committees for the Year 1899-1900.

OFFICERS:

HAROLD N. MOYER, Chicago.....PRESIDENT
J. T. McANALLY, Carbondale FIRST VICE PRESIDENT
WELLER VAN-HOOK, Chicago.....SECOND VICE PRESIDENT
EDMUND W. WEIS, OttawaPERMANENT SECRETARY
B. B. GRIFFITH, SpringfieldASSISTANT SECRETARY
GEORGE N. KREIDER, Springfield.....TREASURER

SECTION ONE.

PRACTICE OF MEDICINE, MEDICAL
SPECIALTIES, MATERIA MEDICA AND
THERAPEUTICS.

H. C. Mitchell.....Chairman
Carbondale.
Charles D. Center.....Secretary
Quincy.

SECTION TWO.

SURGERY, SURGICAL SPECIALTIES,
AND OBSTETRICS

Denslow Lewis.....Chairman
Chicago.
C. E. Black.....Secretary
Jacksonville.

SECTION THREE.

ETIOLOGY, STATE MEDICINE AND MED-
ICAL JURISPRUDENCE.

George F. Butler.....Chairman
Chicago.
W. J. Fernald.....Secretary
Rantoul.

COMMITTEE ON MEDICAL LEGISLATION.

J. W. Pettit, Ottawa, Chairman.
Joseph Robbins, Quincy.
W. H. Wilder, Chicago.
J. A. Egan, Springfield.
The President, Ex-Officio.

COMMITTEE ON NEGROLOGY AND BIOGRAPHY.

John H. Hollister, Chicago.
O. B. Will, Peoria.
E. J. Brown, Decatur.

COMMITTEE ON MEDICAL SOCIETIES.

C. W. Hall, Kewanee.
J. A. Baughman, Neoga.
J. O. DeCourcy, East St. Louis.

COMMITTEE ON REGISTRATION. (Ex-Officio.)

George N. Kreider, Springfield.
B. B. Griffith, Springfield.

EXECUTIVE COMMITTEE. (Ex-Officio.)

H. N. Moyer, Chicago.
Edmund W. Weis, Ottawa.
E. P. Bartlett, Springfield.
H. C. Mitchell, Carbondale.
Denslow Lewis, Chicago.
Geo. F. Butler, Chicago.

COMMITTEE ON PUBLICATION.

Edmund W. Weis, Ottawa.
H. N. Moyer, Chicago.
George N. Kreider, Springfield.

COMMITTEE ON ARRANGEMENTS. Springfield.

E. P. Bartlett, Chairman, Sp'g'f'd.
J. N. Dixon, Springfield.
L. C. Taylor, Springfield.
C. M. Bowcock, Springfield.
B. B. Griffith, Springfield.

COMMITTEE ON SOCIETY HISTORY.

N. S. Davis, Chicago.
Robert Boal, Lacon.
DeLaskie Miller, Chicago.
E. Ingals, Chicago.
J. H. Hollister, Chicago.
Edmund Andrews, Chicago.
T. D. Fitch, Chicago.
L. G. Thompson, Lacon.

JUDICIAL COUNCIL.

C. C. Hunt, Dixon.
Hugh T. Patrick, Chicago.
C. DuHadway, Jerseyville.
J. F. Percy, Galesburg.
James L. Reat, Tuscola.
C. E. Black, Jacksonville.
E. P. Cook, Mendota.
D. W. Graham, Chicago.
O. B. Will, Peoria.

ILLINOIS Medical Journal

The Official Organ
of the
State Medical Society



A Monthly Bulletin
Edited by the
Publication Committee

Printed by
THE ILLINOIS STATE JOURNAL COMPANY.

Entered in the Springfield Postoffice as Second-Class Matter.

Volume XLIX.
Number 4.

Springfield, Ill., October, 1899.

{ Subscription, \$3 a Year.
{ Single Copies, 25 Cents.

TABLE OF CONTENTS.

ORIGINAL ARTICLES.

Remarks on the Diagnosis of Locomotor Ataxia—Hugh T. Patrick, M. D., Chicago,	147
Acute Anterior Poliomyelitis—Elbert Wing, M. D., Chicago.....	150
Treatment of Scarlet Fever—H. S. Worthly, M. D., Elwood.....	157
Rational Therapeutics—R. H. Henry, M. D., Peotone.....	159
Malignant Tumors of the Eye—Wm. H. Wilder, M. D., Chicago.....	165
Unrecognized Small Pox—J. A. Egan, M. D., Secretary State Board of Health, Springfield.....	173

EDITORIALS.

Physicians and Their Families Indifferently Treated.....	174
A Conviction Under the New Medical Practice Act.....	174
Bogus Reformers.....	176
The Sanitary Conditions of Prisons.....	177
Anent Tuberculosis.....	178

OFFICIAL TRANSACTIONS.

Proceedings of Cairo Meeting—Second Day.....	170
Report of Committee on Nominations....	171

CORRESPONDENCE.

The Relations of the Society to Its Legislative Committee and the Board of Health (Continued).....	179
County and District Societies.....	180-188
State Board of Health Items.....	181
Action Relative to Assistants.	
Formaldehyde a Poor Disinfectant.	
About the JOURNAL.....	183
State Items.....	186
Medical Miscellany.....	187
The Press and Pulpit on Christian Science and Faith Curing.....	188
Public Charities of Illinois.....	192

LIST OF OFFICERS AND PLACES OF MEETING SINCE THE ORGANIZATION OF THE SOCIETY.

YEAR.	PRESIDENT.	VICE-PRESIDENT.	SECRETARY.	TREASURER.	PLACE OF MEETING.
1850*	Rudolphus Rouse.....		Edwin G. Meek.....		Springfield.
1850	William B. Herrick.....	Rudolphus Rouse.....	Edwin G. Meek.....	John A. Halderman.....	Springfield.
1851	Samuel Thompson.....	E. McArthur.....	H. Schoemaker.....	E. Rouse.....	Peoria.
1852	Rudolphus Rouse.....	Thomas Hall.....	E. S. Cooper.....	Edward Dickenson.....	Jacksonville.
1853	Daniel Brainard.....	C. N. Andrews.....	H. A. Johnson.....	A. B. Chambers.....	Chicago.
1854	C. N. Andrews.....	Samuel Thompson.....	H. A. Johnson.....	N. S. Davis.....	La Salle.
1855	N. S. Davis.....	E. R. Roe.....	E. Andrews.....	J. V. Z. Blaney.....	Bloomington.
1856	H. Noble.....	T. D. Washburn.....	N. S. Davis.....	J. V. Z. Blaney.....	Vandalia.
1857	C. Goodbreak.....	A. D. McArthur.....	H. A. Johnson.....	J. V. Z. Blaney.....	Chicago.
1858	H. A. Johnson.....	William Lyman.....	N. S. Davis.....	J. W. Freer.....	Rockford.
1859	David Prince.....	H. W. Davis.....	N. S. Davis.....	J. W. Freer.....	Decatur.
1860	Wm. M. Chambers.....	T. K. Edmiston.....	N. S. Davis.....	J. W. Freer.....	Paris.
1863	A. McFarland.....	A. H. Luce.....	N. S. Davis.....	J. H. Hollister.....	Jacksonville.
1864	A. H. Luce.....	J. M. Steele.....	N. S. Davis.....	J. H. Hollister.....	Chicago.
1865	J. M. Steele.....	F. B. Haller.....	N. S. Davis.....	J. H. Hollister.....	Bloomington.
1866	F. B. Haller.....	L. T. Hewens.....	N. S. Davis.....	J. H. Hollister.....	Decatur.
1867	S. W. Noble.....	D. W. Young.....	N. S. Davis.....	J. H. Hollister.....	Springfield.
1868	S. T. Trowbridge.....	J. O. Hamilton.....	N. S. Davis.....	J. H. Hollister.....	Quincy.
1869	S. T. Trowbridge.....	J. O. Hamilton.....	N. S. Davis.....	J. H. Hollister.....	Chicago.
1870	J. V. Z. Blaney.....	G. W. Albin.....	T. D. Fitch.....	J. H. Hollister.....	Dixon.
1871	G. W. Albin.....	John Murphy.....	T. D. Fitch.....	J. H. Hollister.....	Peoria.
1872	J. O. Hamilton.....	T. Worrell.....	T. D. Fitch.....	J. H. Hollister.....	Rock Island.
1873	D. W. Young.....	T. D. Washburn.....	T. D. Fitch.....	J. H. Hollister.....	Bloomington.
1874	T. F. Worrell.....	E. L. Holmes.....	T. D. Fitch.....	J. H. Hollister.....	Chicago.
1875	J. H. Hollister.....	Wm. P. Pierce.....	T. D. Fitch.....	Wm. E. Quine.....	Jacksonville.
1876	T. D. Washburn.....	J. L. White.....	T. D. Fitch.....	J. H. Hollister.....	Urbana.
1877	T. D. Fitch.....	S. H. Birney.....	N. S. Davis.....	J. H. Hollister.....	Chicago.
1878	J. L. White.....	E. P. Cook.....	N. S. Davis.....	J. H. Hollister.....	Springfield.
1879	E. P. Cook.....	J. S. Whitmire.....	N. S. Davis.....	J. H. Hollister.....	Lincoln.
1880	Ephriam Ingals.....	G. W. Jones.....	N. S. Davis.....	J. H. Hollister.....	Belleville.
1881	G. W. Jones.....	William Hill.....	S. J. Jones.....	J. H. Hollister.....	Chicago.
1882	Robert Boal.....	A. T. Darrah.....	S. J. Jones.....	J. H. Hollister.....	Quincy.
1883	A. T. Darrah.....	L. G. Thompson.....	S. J. Jones.....	J. H. Hollister.....	Peoria.
1884	E. Andrews.....	D. S. Booth.....	S. J. Jones.....	Walter Hay.....	Chicago.
1885	D. S. Booth.....	S. C. Plummer.....	S. J. Jones.....	Walter Hay.....	Springfield.
1886	William A. Byrd.....	W. T. Kirk.....	S. J. Jones.....	Walter Hay.....	Bloomington.
1887	William T. Kirk.....	Elias Wengen.....	D. W. Graham.....	Walter Hay.....	Chicago.
1888	William O. Ensign.....	C. W. Earle.....	D. W. Graham.....	Walter Hay.....	Rock Island.
1889	C. W. Earle.....	P. H. Oyler.....	D. W. Graham.....	T. W. McIlvane.....	Jacksonville.
1890	John Wright.....	L. P. Mathews.....	D. W. Graham.....	T. W. McIlvane.....	Chicago.
1891	John P. Mathews.....	Charles C. Hunt.....	D. W. Graham.....	George N. Kreider.....	Springfield.
1892	Charles C. Hunt.....	E. F. Ingals.....	D. W. Graham.....	George N. Kreider.....	Vandalia.
1893	E. Fletcher Ingals.....	Otho B. Will.....	D. W. Graham.....	George N. Kreider.....	Chicago.
1894	Otho B. Will.....	D. R. Brower.....	J. B. Hamilton.....	George N. Kreider.....	Decatur.
1895	Daniel R. Brower.....	A. C. Corr.....	J. B. Hamilton.....	George N. Kreider.....	Springfield.
1896	D. W. Graham.....	J. M. G. Carter.....	J. B. Hamilton.....	George N. Kreider.....	Ottawa.
1897	A. C. Corr.....	J. M. G. Carter.....	J. B. Hamilton.....	George N. Kreider.....	East St. Louis.
1898	J. M. G. Carter.....	T. J. Pitner.....	E. W. Weis.....	George N. Kreider.....	Galesburg.
1899	T. J. Pitner.....	H. N. Moyer.....	E. W. Weis.....	George N. Kreider.....	Cairo.

*Preliminary Convention.

EXPLANATION.—No meeting was held in the years 1861 or 1862, "on account of the large number of members engaged as surgeons in the volunteer army of the United States."

Until the meeting of 1869, it was the custom to elect officers the first day, and for the President to have charge of the meeting at which he was elected. Hence Dr. Trowbridge seems to have presided over two meetings, although elected President but once.

The Illinois Medical Journal.

The Official Organ of The Illinois State Medical Society.

VOL. XLIX. }
No. 4. }

Springfield, Ill., October, 1899.

{ SUBSCRIPTION
{ \$3.00 A YEAR.

REMARKS ON THE DIAGNOSIS OF LOCOMOTOR ATAXIA.

BY HUGH T. PATRICK,

Professor of Neurology in the Chicago Policlinic; Associate Professor of Nervous Diseases, Northwestern University Medical School; Neurologist to the German and St. Anthony's Hospitals; Consulting Neurologist to the Illinois Eastern Hospital for the Insane.

To introduce before this society such a hackneyed theme as the diagnosis of tabes dorsalis may be quite unwarranted, but as I have seen in the last few years quite a number of cases of the affection which the general practitioner had failed to recognize, as well as a number of cases in which the diagnosis of tabes had been wrongly made, I have ventured to think that a few practical remarks on the subject might not come amiss to some of the members not deeply versed in nervous diseases and yet liable to see cases of locomotor ataxia.

Bowing to the necessity of brevity, I shall consider only two phases of the subject and those briefly: First, on account of what disabilities and discomforts does the tabetic patient consult the physician and, second, what are the signs and symptoms upon which a diagnosis of tabes should be based? To separately answer these two questions will necessitate some repetition.

For the victim of locomotor ataxia to first consult a physician on account of incoordination in walking is a rarity. As a rule other symptoms drive the patient to seek medical advice many months or many years before he is conscious of any ataxia in movement. Indeed, as we shall immediately see, this symptom may never appear, even though the disease last a quarter of a century.

Passing now to the manifestations that do make the individual a patient, among the earliest must be counted lancinating

and other pains. About a year ago I was consulted by a gentleman fifty-three years of age, for "sciatica" and "chronic neuralgia," to which he had been a martyr for twenty-five years. Simply the history of these pains as obtained from statements of the patient was quite enough to determine the diagnosis, without eliciting another symptom or making an examination and yet, as nearly as I could learn, a correct diagnosis had never been made. Although he complained of nothing else whatever, the case was a typical one of locomotor ataxia, except that there were still traces of the knee-jerk. He had no incoordination. It is not to be supposed that the pains of tabes always conform to the classical type—the severe, shooting or stabbing, intermittent and irregularly periodical pains in the legs. They may possess the typical quality but be located in the arms, trunk or even head, in the last location closely simulating tic douloureux. Very frequently the lancinating character is entirely wanting, the patient complaining of a prolonged burning or boring sensation that is often located in the region of a femoral condyle, on the outer surface of the leg or about one malleolus of the ankle. Some patients complain merely of an excessively tired feeling, or a sensation of tension or an uneasy ache in the legs. In others, epigastric distress, a pseudo-intercostal neuralgia or a feeling of intense unrest in some part may constitute the first symptom noticed by the patient.

Quite a large proportion of tabetics (estimated as high as ten or twelve per cent) first seek the advice of a physician because of failure of vision due to atrophy of the optic nerve, and a striking peculiarity of many such cases is that, the optic atrophy once complete, the disease ceases to progress or progresses so slowly that the stage of incoordination never is reached. To

these cases Dejerine has applied the striking if somewhat illogical designation, "tabes arrested by blindness."

Another symptom connected with the eye which may appear so early as to be the first one to annoy the patient is diplopia or ptosis. I should think that fully ninety per cent of all paralyses of ocular muscles appearing in adults may be referred to tabes, syphilis or general paresis, and of these three diseases, tabes is the most frequent cause of such paralyses.

In no inconsiderable number of ataxies the bladder is the first organ to be disordered. Within a few weeks I received from the same physician two ataxies who complained of nothing but an inability to retain the urine a normal length of time. The first was in fear of losing his position because of the frequency with which he was compelled to visit the urinal and the second always retired with quite an elaborate system of linen and rubber diapers to protect his nightwear and the bedding. More frequent and earlier than incontinence or urgency of call to micturate is tardy action of the bladder on attempt to evacuate it. With full desire to urinate the patient has to wait and strain before he can start the stream and even when started it is apt to be weak and irregular or intermittent, simulating to a certain extent the embarrassment of an enlarged prostate. Indeed, I have known more than one ataxic to be treated for urethral stricture or prostatic disease, the true nature of the malady being overlooked on account of the prominence of the urinary difficulties. Almost as frequent as the slow action above mentioned is a slight premature evacuation, probably caused by momentary relaxation of the sphincter of the bladder. That is, the subject has a call to urinate and promptly starts for the proper place, but before he can reach it loses a few drops of urine in his trousers. Many of the cases have residual urine.

Occasionally the rectum suffers earlier than the bladder and the patient applies for relief of poor sphincteric control or

obstinate constipation. A feeling of fullness in the rectum with numbness in the anal region is frequent.

Of all the misleading symptoms of locomotor ataxia none seems to be more uniformly deceptive than the gastric crises. They generally come early in the disease when other symptoms are undeveloped. They are, upon the face, so very far removed from uncertainty in walking and the patient himself is so sure to have some dietary or stomachic explanation of the phenomena, that even old observers are sometimes caught unawares.

Occasionally tabes makes its apparent debut by depriving the victim of sexual power and still more rarely the patient first notices numbness and anesthesia in the distribution of the fifth nerve.

It is not so very rare for tabes to announce itself by the appearance of a perforating ulcer of the foot, and as this lesion generally appears in connection with a corn or an unruly callous on the sole it is often considered to be a purely local trouble and the underlying spinal cord disease is overlooked.

In all cases, then, of pains, uneasiness or numbness in the legs or elsewhere, of failure of vision, of ocular paralyses, of bladder trouble, of refractory constipation or rectal tenesmus, of periodical vomiting or "bilious attacks," or even attacks of stomach pain without emesis, of diminished sexual power, of anesthesia of the face, of indolent ulcer on the foot, as well as in all cases in which the patient complains of weakness, uncertainty or ready tire of the legs, it is incumbent on the medical adviser to examine for locomotor ataxia.

Passing now to the second question—For what is the examiner to look and by what is he to be guided in reaching a diagnosis?—it may be briefly answered in somewhat categorical fashion as follows:

1. Loss of the knee-jerk.
2. Reflex irido-plegia. (The Argyll-Robertson pupil).

These two are *par excellence* the objec-

tive signs of locomotor ataxia and any patient who has no patellar tendon reflex and whose pupils contract with accommodation but not to light is in all probability suffering from this disease.

History of lightning pains. The typical lancinating pains of locomotor ataxia are pathognomonic. They occur at irregular, generally rather long intervals, rarely last more than a day or two, generally a few minutes or a couple of hours. During their continuance they are distinctly but rapidly intermittent, the individual pain lasting only from a fraction of a second to a few seconds. But after all, the typical pains in all their perfection are almost the exception, rather than the rule, the atypical burnings, borings and aches being quite as frequent, if diagnostically less pointedly significant.

4. Disorder of the vesical function—a relative retention, a relative incontinence, or both, as already described.

5. Analgesia of the legs. To examine the tactile sense alone is to make a grave error of omission. In the vast majority of cases sensation to touch on the lower extremities remains intact until the disease is well advanced, whereas the perception of painful impressions below the knee is frequently blunted in the very early stages. Having learned that the patient is instantly aware of a touch which disturbs only the hair on the legs and never reaches the skin, to find that a pin may be thrust through a fold of integument without pain is somewhat startling, but it is not an unusual finding.

6. A history or other evidence of specific disease is of major importance *provided* infection has not occurred too recently. The prominent role of syphilis in the etiology of tabes may now be considered as demonstrated, but tabes is not syphilis of the spinal cord and does not, like syphilis of the cord, appear within the first years after infection. As a rule locomotor ataxia begins eight to twelve years after the chancre; its appearance within five years is exceptional but a

longer interval than twelve years is far from rare. I have now under observation a patient whose first symptoms of tabes were noticed twenty-five years after the initial sore of syphilis.

7. Ocular palsies, coming on suddenly, especially if more or less transient, are strong corroborative evidence of locomotor ataxia.

8. By far the greater number of cases of primary atrophy of the optic nerve are due to tabes and this atrophy with one or two additional indubitable signs is quite sufficient for a diagnosis.

9. Very important in the way of confirmatory evidence are the various atypical pains and paresthesiæ, of which may be instanced numbness along the distribution of the ulnar nerve, in the legs and feet, in the perineal and anal regions or about the trunk, long continued intercostal neuralgia, epigastric distress irrelative of meal-time or choice of food, and a feeling as if the rectum contained feces or a foreign body. In the case of a female patient recently examined this rectal discomfort was the first symptom complained of and was so urgent that she had been faithfully treated for rectal disease and uterine displacement and was finally sent for operation to a gynecologist who referred her to me.

10. In about eighty per cent of all tabetics a more or less complete zone of anesthesia may be discovered around the body at about the mamillary level. As this anesthesia of the trunk is very rare in other diseases its diagnostic value is considerable. It is not, however, a very early sign.

11. Analgesia of the ulnar nerve is frequent in tabes, quite rare in the normal individual and infrequent in all other diseases except general paresis. When, in the normal person, the ulnar nerve is forcibly pressed against the inner condyle or condyloid ridge of the humerus—a manœuvre that is not difficult of execution—there is very considerable pain *at the*

point of pressure. It is the absence of this pain which is diagnostic.

12. The peculiar normal testicular pain on pressure is said by Pitres to be absent in seventy-five per cent of tabetics. I cannot confirm the figures but I can attest to the frequency of the symptom.

13. When present, fully-developed gastric crises are almost pathognomonic and require but little confirmatory evidence. The same may be said of the typical arthropathies.

14. Diminished sexual power alone is of absolutely no value. An overwhelming preponderance of such cases are of psychic or local origin and I have known a patient with locomotor ataxia preserve this vital function when he had incontinence of urine and feces and his incoordination was so overwhelming that he could scarcely crawl. When psychic influences can be excluded, sexual debility or impotence is of some diagnostic significance.

15. Before incoordination appears one can ordinarily demonstrate impairment of what is currently called the muscular sense, but what were better named sense of position or sense of motion. That is, the patient is unable to appreciate such slight passive movements of the toes or of an extremity as are a once perceived by the normal individual. This sense is naturally very acute and the physician should know by experience how acute before attempting to demonstrate its blunting as a sign of disease.

16. Ataxia. It may always be found by careful examination before the patient is aware of its presence.

17. Persistence of painful impressions, especially on the legs. For instance, a quick pin prick or pinch is perceived as a prolonged stinging or burning sensation. I am not sure that this symptom should not be placed higher on the list as it is rather frequent—more frequent than delayed sensation—and very characteristic.

18. Muscular hypotonus. That is, the muscles are unnaturally lax and flaccid.

This may be shown by "doubling up" the patient, when it is frequently found that he may be flexed without inconvenience until the face is almost between the legs. The muscles, too, are insensitive to pressure.

Venetian Building.

ACUTE ANTERIOR POLIO-MYELITIS.

BY ELBERT WING, M. D.,

Professor of Diseases of the Nervous System, Northwestern University Medical School; Neurologist to St. Luke's Hospital; Consulting Neurologist, Provident Hospital, Chicago.

The ultimate objects of the practice of medicine are the cure and the prevention of disease. The usefulness of a physician in his cure of disease depends upon his conduct of the case. The conduct of the case is intelligent in proportion as it is based upon an accurate knowledge of the pathology which underlies it.

Charcot taught that acute anterior poliomyelitis is primarily a parenchymatous inflammation of the ganglion cells of the anterior horns of gray matter in the spinal cord. Much evidence has accumulated since Charcot's teaching was new, to show that this disease is an inflammatory process of vascular origin, and probably of an infectious nature. The object of this paper is to present a brief review of this evidence, which may be classified as anatomical, pathological, and clinical.

I. *Anatomical.*—Obersteiner (The Central Nervous System) and E. A. Schaefer (Quain's Anatomy) base their discussion of the vascular supply of the spinal cord upon the work of Adamkiewicz and Kadyi. These are the sources of the anatomical data of this paper.

The anterior and posterior spinal arteries supply the cord with blood. They are formed by the branches from the vertebrals, together with affluents which join them lower down. The branches of the vertebral arteries which form the anterior spinal artery (Fig. 1, *Spa*) unite as a rule

at the level of the fourth to the sixth spinal nerves. Occasionally the union is lower down, and "they separate and reunite repeatedly." Of these affluents one, which

All of these arteries, in Cohnheim's sense, are terminal arteries, but "no one set of arterioles is confined in its distribution to any one group of cells" (Schaefer).

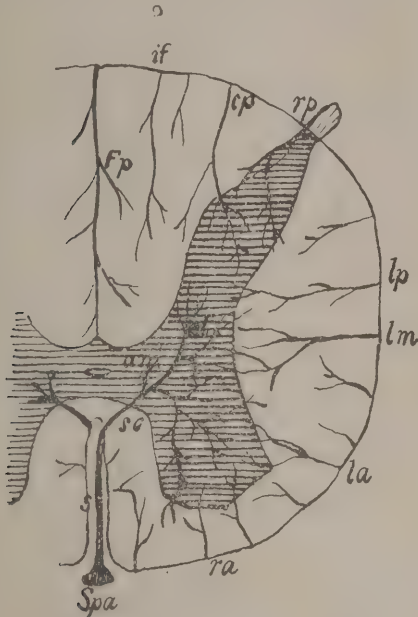


FIG. 1.—Arterial supply of spinal cord. (Obersteiner).

is relatively very large, is found between the eighth dorsal and third lumbar vertebrae on either side, and has been called by Adamkiewicz "arteria spinalis magna." The posterior spinal arteries, also derived from the vertebrals, remain separate but have frequent anastomotic branches. The arteries of the sulcus (Fig. 1, *s*) leave the anterior spinal artery very irregularly and at right angles. They rarely divide except after entering the gray matter. The division is into two branches. One of these (Fig. 1, *an*), through anastomotic branches, goes to form an artery which runs, cephalocaudad, throughout the cord. The other branch is distributed chiefly to the gray matter of the anterior horn, which it supplies very richly, and slightly to the adjacent white matter. Posterior to the level of the anterior gray commissure, the cord is supplied chiefly by the posterior spinal arteries. This supply is relatively scanty.

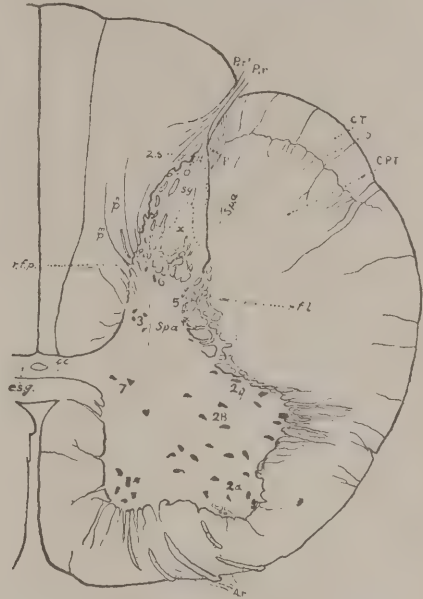


FIG. 2.—Transverse section of human spinal cord at level of sixth cervical nerve. (Foster).

Figs. 2, 3, and 4 are copied from drawings in Foster's Physiology. The original drawings were made by Sherrington, carefully drawn to scale from actual sections of the cord. These drawings are from sections of the sixth cervical, sixth dorsal, and third lumbar segments. They show the relative amounts of gray and white matter in cross-section, and also the arrangement and grouping of the ganglion cells.

The anatomical evidence presented in this paper shows the following facts:

1. The vascular supply to the spinal cord is most abundant in the lumbar region.

2. It is relatively much more abundant in the anterior horns of gray matter than it is in the white substance.

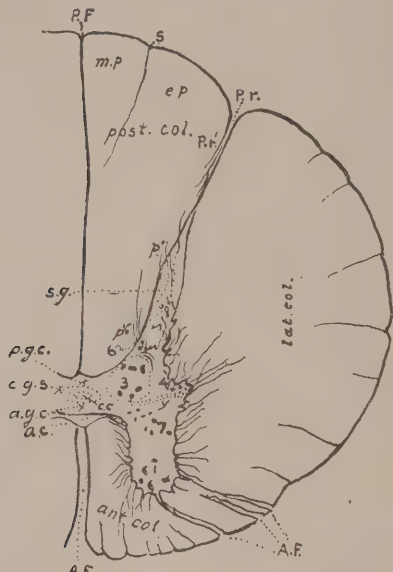
3. While "no one set of the terminal arterioles is confined in its distribution to any one group of ganglion cells," it is improbable that any one set of these vessels is distributed to many groups of the cells.

4. The number of ganglion cells is

very great in the cervical and lumbar swellings, and relatively small in the other segments of the cord.

Kaiser's estimate, quoted by Joseph Collins in the *New York Medical Journal* of

6. The relatively larger number of ganglion cells in the parts of the cord from which the nerves of the extremities arise, and the small number of such cells in other parts, is an ample explanation of the clin-



1 FIG. 3.—Transverse section of human spinal cord at level of sixth dorsal. (Foster).

January 13, 1894, page 41, is that the absolute number of ganglion cells in the segments mentioned is as follows:

Fourth cervical segment.....	28440
Fifth cervical segment	64230
Sixth cervical segment	44560
Seventh cervical segment	36850
Eighth cervical segment	47970
First dorsal segment	27600

Total number which supply the nerves of the brachial plexus 249650

5. In an inflammatory process of vascular origin, limited to the spinal cord, it is further evident that: (a) because of their histological characters and physiological functions, as well as the arrangement of their blood-supply, the ganglion cells will suffer most; (b) because of the peculiarity of the arterial supply some groups may suffer complete destruction, while others may suffer but little; and between these extremes all degrees of destruction will occur.

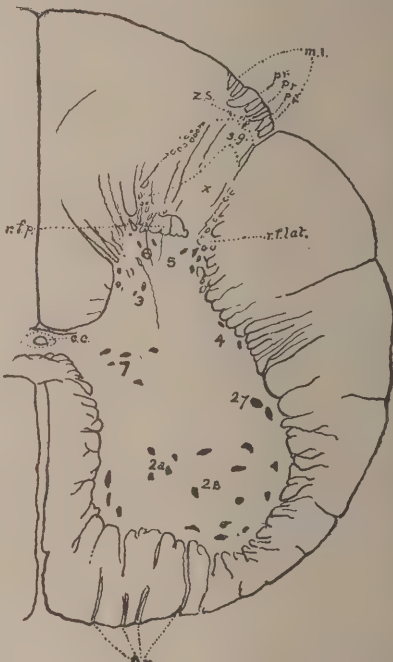


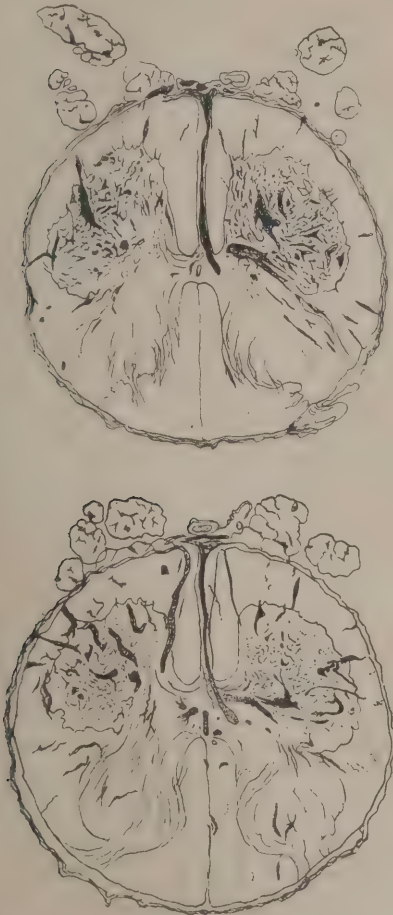
FIG. 4.—Transverse section of human spinal cord at level of third lumbar nerve. (Foster).

ical distribution of the motor paralysis in cases of the disease.

II. *Pathological.* The pathological evidence consists in the results of investigation of the spinal cord in (1) old cases, (2) recent cases, (3) cases of other but analogous or similar diseases, (4) experimental pathology.

The investigations of the cord in old cases show only the histological results of the process, and throw little light upon its nature. In addition to the long and well known destruction of ganglion cells, increase of connective tissue, and general shrinking of the affected horns of gray matter, the manifestation of greatest interest is the existence in the sclerotic areas of isolated groups of ganglion cells entirely unchanged. These are very irregularly distributed, but show clearly that they

have escaped the general inflammatory process, and their distribution corresponds with the eccentric clinical distribution of the motor paralysis. If these histological conditions which characterize the old cases were the only pathological evidence the contention of Charcot might be sustained; and, indeed, it was upon just this evidence that the teaching was based. In this argument, among the pathological conditions of the non-nervous tissues in old cases, the arrest of growth in the long bones is the only one of interest.



FIGS. 5 AND 6.—Cross-section of spinal cord in acute anteropoliomyelitis. Death on thirteenth day. (Goldscheider.)

There have not been many opportunities for examination of the spinal cord in recent cases. Of those who have had an opportunity for such post-mortem study,

Rissler (a pupil of Medin, of Stockholm) and Kahlden still hold the views of Charcot. Among those who oppose this view are Goldscheider, Siemerling, Dauber, Pierre Marie, von Leyden, Redlich, and Fr. Schultze. Goldscheider, Siemerling, and Dauber base their opinions upon post-mortem examinations of recent cases. Goldscheider's drawings (Figs. 5 and 6) demonstrate the nature of the process in recent cases. The entire cross-section of the cord is involved; by far the greatest intensity of the process is confined to the anterior gray horns; the arteries are distended, and there is a marked perivascular extravasation of small cells—an unmistakable inflammatory process of vascular origin.

The contention of Marie and Goldscheider (*Zeitschr. für Klin. Med.*, v. 23, 1894) that the process has its starting-point in the vessels, as well as the claim that the process is in all cases primarily general inflammation of the cord, and that while the entire cross-section is attacked the anterior horns of gray matter suffer chiefly, and at times alone, finds ample confirmation in the recent cases reported by Redlich (*Wiener Klin. Wochenschr.*, April 21, 1894) and Siemerling (*Arch. für Psychiat. und Nervenkr.*, v. 26, No. 1). In these three cases the vessels were markedly affected throughout the cord, and especially in the region of the anterior spinal artery.

The evidence in confirmation which is furnished by other inflammatory processes in the spinal cord comes from the more recent studies of cases of acute ascending paralysis, or Landry's disease. The men whose investigations have placed this disease among the acute infectious inflammations of the spinal cord are Curschmann (1886), Catani, Eisenlohr (1890, Bailey and Ewing, Oettinger and Marinesco (1896), Hirtz and Lesne (1897), Mills and Spiller, and L. Krewer (1898). This progress has been due to improved technical methods. In these cases the same microorganisms have not always been

found, and in most of the cases none were found in the cord itself, but the evidence of infection and the vascular origin of the inflammatory process is positive and conclusive. The investigations indicate an acute toxemia whose predilection is for the anterior horns of the cord, first with functional loss, followed by histological changes in the ganglion cells in the anterior horns and the nerves.

In the investigations in the field of experimental pathology, Nissl (*Wiener Med. Wochenschr.*, Aug. 2, 1898, quoted in *Philadelphia Medical Journal*; April 24, 1898) reports results upon cells and fibers in cases of fatal intoxication slowly produced by the action of morphine, veratrine, nicotine, and alcohol. The histological results were the same in each case.

Max Rothman (*Neurolog. Centralb.*, Jan. 1 and 15, 1899; *Philadelphia Medical Journal*, Jan. 28, 1899) reports the results in dogs of temporary occlusion of the aorta below the mesenteric artery. The time of the occlusion varied from one hour to one hour and ten minutes.

After six hours the Nissl bodies of the cells of the anterior horns appear paler and less sharply circumscribed. In some the nucleus is central, in others it is distorted and near the periphery.

After twelve hours the Nissl bodies are no longer recognizable; the protoplasm in some cells is diffusely stained and shows a finely reticular structure; many have lost their protoplasmic processes, and some are merely colorless vesicles.

After twenty-eight hours the Nissl bodies begin to reappear, grouped chiefly around the nucleus in a finely granular layer, but the periphery usually remains unstained.

After four or five days the cells begin to recover, but some remain granular and the nucleus scarcely distinguishable.

At the end of sixteen days the majority of the cells have recovered.

Reference here should be made to the report of Lamy (Goldscheider, Nothnagel's *Handbuch*, p. 424), that after the injection

of an indifferent powder into the abdominal aorta, arterial obstruction and consequent hemorrhagic softening occurs first in the gray matter of the cord.

Because the general pathological conditions do not in any way disclose the nature of the inflammatory process, they will be referred to in the discussion of the general theory of the disease, and only incidentally.

III. *Clinical.*—The clinical evidence, which shows the process to be an acute inflammatory one, is not discussed in this paper because it alone does not indicate whether the process is parenchymatous or interstitial. There is abundant evidence, however, to show its infectious nature.

The symptoms of the invasion are abrupt attack, fever, prostration, pain, usually rheumatoid, rapidly established motor paralysis, and, in severe cases, delirium, vomiting, and paralysis of the bladder. Excepting the motor paralysis, these are the symptoms of pneumonia, tonsillitis, streptococcus infection anywhere in the body, measles, and scarlet fever. Again anterior poliomyelitis has frequently been epidemic. (Altman, Calverly, Colmar, Cordier, Leegard, Lyon, Medin (44 cases), Oxholm, abroad; Dana (*New York Medical Journal*, Dec. 29, 1894), Macphall (*Medical News*, Dec. 8, 1894), 160 cases; and others.)

The fact that most cases occur in young children, and that most single cases and all epidemics have occurred between late spring and early autumn, tend strongly to support the infectious theory of the disease. The same may be said concerning the relation of the disease to dentition, injuries, and infectious diseases, since all of these conditions either reduce resistance to a point favorable for the development of microorganisms or furnish them.

The anatomical evidence submitted in this paper shows conclusively that if acute anterior poliomyelitis is an inflammatory process of vascular origin, it would attack the lumbar region of the cord most frequently, and work its greatest degree of

destruction among the groups of ganglion cells of the anterior horns; that next it would attack the cervical segments most frequently. And all of these things it does. It is idle, perhaps, to even hazard a guess as to why it attacks the left side more often than the right, and some groups of cells and not others; but it is at least possible that some peculiarities in the vascular supply of the cord may yet be worked out which will explain all of these facts. The evidence in support of the claim of the probable infectious nature of the disease might be very much elaborated both in detail and in instances; but that submitted is thought to be sufficient. A similar remark may be made concerning the claim that the process tends to attack the entire cross-section of the cord. Of course, this is probably simply a matter of relative virulence of infection and power of resistance.

Nissl's discovery that the effect of various poisons upon the protoplasm of ganglion cells is the same, no matter what the function of the cells is, taken in connection with the relation of the vascular supply to the several histological structures in the cord, is a quite sufficient explanation of the limitation of the paralysis to the motor sphere. Rothmann's discovery, if confirmed, concerning the recovery of ganglion cells after partial destruction of their protoplasm, fully explains the restoration of power to muscles completely paralyzed in the early stages of an attack.

The relation of the atrophied muscles to the destroyed ganglion cells of the anterior horns is so well understood that it needs only this mention. The arrested development of the long bones tends to confirm the claim that the disease attacks the posterior as well as the anterior horns of the cord.

If the importance of the treatment of disease is not overstated in the opening sentences of this paper, a very brief mention of the indications which should guide it may be made. First, treat the initial stages as those of any acute infectious dis-

ease—quiet, antipyretics, cathartics, diuretics, anodynes, and nervous sedatives *pro re nata*. As soon as danger of inflammatory reaction has passed, exercise the paralyzed muscles. Electricity is valuable for this purpose in cases in which the patients will submit to its use in currents sufficiently strong to be efficient. Massage is of the greatest value. It should be as thorough as the case permits. It should be continued as long as any improvement continues, or until no retrogression follows its abandonment. In some cases this is much longer than a year. Passive exercise is secured by electricity and massage. Active exercise, when possible, is the best and should be encouraged in all possible ways, stopping always short of continued fatigue. Transplantation of tendons, care in prevention and correction of deformities, as indicated. And finally, never forget Gower's admonition that after six months, so far as the cord is concerned, the lesion has become a cicatrix.

DISCUSSION.

DR. HUGH T. PATRICK, Chicago: I would like to say a word or two on the paper of Dr. Wing. I have had an opportunity of seeing sections of three cases of anterior poliomyelitis in which the post-mortem and microscopical examinations were made within a few days after the onset of the disease. They all showed the typical appearance described by him, which proved conclusively that the disease is an acute inflammation, and as shown in the histological appearance. The vessels and the area surrounding the vessels showed all the indications of an acute infection, so that I agree with Dr. Wing that the evidence is now very conclusive that the disease is an acute inflammation extending from the vessels and not a parenchymatous change in the nerve cells.

I should also like to say a word or two on the clinical aspect of the disease. Frequently, the most prominent symptom is pain. I have known several cases that were mistaken for rheumatism, and the fact that the child did not move the extremity was attributed to the pain which would be occasioned by moving a rheumatic extremity. This is simply a statement to be taken in the form of caution. In all cases of apparent rheumatism in children, always examine for paralysis. In the next place, although the disease is undoubtedly an acute infection, the primary manifestations are most varied, as they are in most acute infections, as typhoid fever, running of course very differently in different in-

dividuals. These children show first simply disability of the arm without pain perhaps, without any evidence of fever, without vomiting, without sleeplessness. The child cannot use the leg as well as formerly, and the case is perhaps mistaken for joint disease, not rheumatic, but for hip joint disease.

A third point with reference to this clinical aspect of these cases is that until the paralysis appears there is no possible way of making a diagnosis. I have known several instances in which physicians were severely censured by parents and friends because they first thought it was a case of measles, of scarlet fever, or sore throat, or some other kind of infection, because all the symptoms present were those of an acute infection in childhood, the physician never suspecting that it might possibly be the beginning or onset of an acute anterior poliomyelitis. So in cases where there is evidence of acute infection in a child, with high fever, vomiting, convulsions, sleeplessness, no appetite, etc., it is generally wise, even if the cases are rare, to go over the case carefully to see whether there is any paralysis, because although the symptoms of systematic intoxication may be pronounced, paralysis may not appear for two or three days, and when it does appear there is nothing in particular to call attention to the paralyzed extremities, especially if the child is very ill.

DR. DANIEL R. BROWER, Chicago: I wish to thank Dr. Wing for his admirable presentation of this interesting subject, and to emphasize the fact brought out by Dr. Patrick, that it is utterly impossible to diagnose anterior poliomyelitis during the active febrile stage. There is no means of making an accurate diagnosis until the paralysis is established. I concur in the statement of Dr. Patrick that it is our duty to examine patients from head to foot every time we have an opportunity to do so. The friends of the patient will always be unreasonable, expecting the physician to have the power of looking very far into the future.

I desire to emphasize some of the points in diagnosis that Dr. Patrick so admirably presented to us before the noon hour, and the very great importance of diagnosing locomotor ataxia in the preataxic stage. I am one of those who believe that locomotor ataxia, if diagnosed in the preataxic stage, can have a great deal done for it. I am not so gloomy in my prognosis as some physicians in this disease, and I believe locomotor ataxia should be more frequently diagnosed in the preataxic stage than it is. If we will simply take the trouble to study more carefully pain symptoms, sensory symptoms, analgesic symptoms that these cases present; if we will inquire into the reflex symptoms, the pupillary and the patellar tendon reflexes, we can make an early diagnosis of this disease. Sometimes the pupillary reflexes are the first disturbed. I have a case under observation at the present time in which locomotor ataxia has been running on for five or six months, but there is no disturbance of the patellar tendon reflex. There is, however, marked disturbance of the

pupillary reflex. The patient has pin-point pupils; he has sensory symptoms, analgesia, and the characteristic pain of the disease, as well as the bladder symptoms that Dr. Patrick has described. It is exceedingly important that we should make a diagnosis in cases of locomotor ataxia early. When the ataxia is acute, I think the treatment amounts to little or nothing, but I am sure that in the preataxic stage a great deal can be done for these patients.

DR. W. X. SUDDUTH, Chicago: Apropos of the point just raised by Dr. Brower in regard to Dr. Patrick's paper, I would say that in an attack of epilepsy there is a very great predominance of fear, and that the onset of the convulsion may be aborted by the process I spoke of in my paper, namely, of disassociation of consciousness, of diverting the attention of the patient from himself at the time of the attack, and clinical experience has taught me that this is possible even in cases of grand mal. The particular method I employ is a system of abdominal breathing. I teach patients to use the abdominal muscles, diverting their attention from the condition they are to experience and the attack is aborted. I have given up the use of nitrite of amyl and nitroglycerine, which are advocated and used in the beginning of the onset of the attack. Patients learn to relax themselves instantaneously, to cut off the nervous strain, and the attack is aborted through a system of psycho-physical education. In this way the great majority of epileptics can be made fairly comfortable. Careful attention must be paid also to the diet and to the elimination of the waste products of the body. Teaching them relaxation and the ability to disassociate consciousness, to separate the objective from the subjective, and overcome fear which is the cause of the depth of the convulsion in most instances. Not only that, but there is a convulsive habit that becomes established in cases of epilepsy. After the disease, as far as we know externally, has been cured, the convulsions will continue; the patient gets into the convulsive habit, and by this system of psycho-physical culture, which you will find in the paper when it is published, you can see how it is possible to break this convulsive habit by this one point of disassociation of consciousness.

DR. ELBERT WING, Chicago: The importance of care in making the diagnosis in anterior poliomyelitis cannot possibly be overestimated, and this has been repeatedly impressed upon my mind by observing mistakes that have been made in the diagnosis of this disease. Many of these mistakes are made in diagnosis through indifference or not spending sufficient time in examining cases. One of the best practitioners of general medicine in Chicago made a diagnosis of gastritis in one case, when it was nothing in the world but a case of locomotor ataxia.

In regard to the use of bromides in the treatment of epilepsy, I would like to emphasize the point made by Dr. Brower, that in my opinion bromides are the last things that

should be given. When the case progresses to the point to give bromides, we cannot do very much for him. It is very essential to get the patient's general health as nearly normal as possible. This should be constantly borne in mind.

In regard to my own paper, I purposely kept out of the line of anything else except the main point. I tried to show the nature of this acute infection and the part of the cord infected. In some cases only a small area of the cord is involved, while in others large areas are implicated.

TREATMENT OF SCARLET FEVER.

BY H. S. WORTHLY, M. D., ELWOOD.

The object of this paper is to give in brief my experience derived from observing clinically some cases of Scarlet Fever.

It is not my purpose to speak of the complications or sequellæ occurring in many cases with this illness, but rather an outline of treatment, for in the time allotted one cannot go into details.

In order to treat Scarlet Fever successfully, it is necessary to recognize the disease as one which is self limited.

It runs a certain course, has certain stages and is not abbreviated by any known treatment.

Therapeutic measures can only moderate its symptoms and render it milder.

The severity of the disease is indicated by its symptoms and the symptoms may be to a certain extent under therapeutic control.

I wish to speak first of hygienic measures.

The patient should be isolated, in a room which is well ventilated, the temperature of the room should be from 66° to 70° F.

Extreme variations in temperature should be avoided. I have observed that in the majority of my cases the room has been kept too warm, and that not enough care has been given to maintain an even degree of temperature.

It is true that certain complications are liable to occur with the most judicious hygienic care, yet the careless exposure of a patient to currents of air or the change of a warm to a cold air, may change an

apparently mild attack to one of severe form.

The patient should therefore remain in bed, lightly covered, during the active period of the disease, be it either a mild or a severe attack.

Considering now the second measure of treatment, namely, the therapeutic.

I wish first to speak of the mild cases. While these cases do not require heroic measures to make the patients more comfortable, they are often a source of great anxiety to the Practitioner and the circumstances of the case are such that it is very difficult for him to watch closely its progress.

However mild he may consider the case, the Physician should not fail to record the temperature, note the pulse, inspect the fauces and inquire in reference to the fecal and urinary evacuations, that he may detect early any unfavorable changes which may occur.

In all cases the Physician should prescribe some antiseptic treatment for the fauces, and a mild anti-septic ointment for the skin.

I have found it profitable for me to personally supervise the first application to the throat, for by so doing one is better able to judge from the success of the application, as to the manner and efficiency with which the remedies will reach the inflamed areas of the throat.

Chlorate of Potash I have found to be an old and safe remedy to be left with the mild cases.

If the child has been taught to gargle I instruct the nurse to see that the throat and mouth are cleansed every hour.

If the patient cannot gargle an atomizer can be used, but the patient's confidence must be first obtained.

The general condition of the child, as regards its circulation, the nervous system, or the indications to be met, must be the guide to the Practitioner for the internal remedy he may prescribe.

The successful treatment of the severer forms of Scarlet Fever requires not only

skill and experience, but visits sufficiently prolonged or frequent to observe fully the symptoms and type of the disease and the efficiency with which your remedies are combating the trouble.

The indications to be met are:

I. To diminish to a safe degree the dangerous symptoms.

2. To sustain the strength during the course of the disease.

3. Limit complications and lessen the number of sequellæ.

High temperature, continuing for a time tends to produce degenerative changes in the tissues and among one of the dangerous tissue changes produced by fever is granulo-fatty degeneration of the muscular fibre of the heart. A high temperature in itself therefore involves danger and if it occurs in a disease like Scarlet Fever and be protracted, it diminishes the chance for a favorable termination.

Of measures designed to reduce a high temperature, I wish to refer to the use of water. The temperature can be reduced without shock or injury to the patient by the judicious use of water externally.

It is to be considered that a temperature at or below 103° does not urgently require reduction since it is a grade of heat that usually can be safely borne for a few days.

I have found that relief is often given the patient, with a temperature ranging from 101° to 103° by sponging the face, neck and head with cold water. The higher the temperature the more urgently is its reduction required.

The condition of the patient as regards strength and ability to react after bathing should be considered. In a case in which the temperature may be 105° or higher the patient is restless, probably delirious, the pulse though rapid, is strong and full and the rash has a bright red color.

In such cases there is little danger of producing heart failure by repeated cool sponging, and if necessary bathing in order to reduce the temperature. On the other hand, in cases in which the temperature may be elevated to a dangerous degree the

pulse is easily compressed, the capillary circulation is sluggish, the skin of a dusky color.

In such cases the injudicious use of cold water may cause great depression and the patient pass into a state of collapse and die.

The indication in such cases is a tepid sponging, with gentle brisk rubbing to stimulate the capillary circulation and the use of warm applications to the extremities.

I have found that there is great reluctance on the part of many parents to accept this form of treatment to reduce temperature.

This may be in a measure overcome by explaining to them what it accomplishes, and showing them how you wish it to be used.

I have found in all hyperpyretic cases, in which there is either restlessness or somnolence with delirium, that the application of cold water to the head has been beneficial; this may be applied either by a cloth or ice bag.

If with a cloth, it should be of good size, and should be changed as often as every ten minutes, whether the child is sleeping or awake.

I find it of advantage also to place a cloth wet in tepid water about the throat. This, frequently renewed, lessens the pharyngitis and thus aids in the child being able to swallow better and there is less difficulty to get it to take food.

In proper discrimination of cases my experience has been that the external use of water in a majority of cases is of marked benefit and that in the country districts it is not used extensively.

Of the medicinal agents in cases of hyperpyrexia the two which I give most frequently are aconite and Phenacetine; these I give in small doses often repeated and usually combined with a heart stimulant.

If there is a history of convulsions or the symptoms point strongly toward them, I give small doses of calomel every half hour.

If the bowels have been constipated, I advise an enema at once.

If convulsions occur Bromide of Sodium given in good doses frequently repeated gives much relief, and may be discontinued as soon as the symptoms become better.

In case of very rapid pulse and in which some heart stimulant is required the Aromatic Spirits of Ammonia given in milk, has been very satisfactory. Carbonate of Ammonia and Camphor are frequently prescribed also.

The use of Digitalis I reserve until I have some complication arising either from the heart or kidneys.

In the management of grave cases, in case of feeble capillary circulation and marked prostration, the use of alcohol may be advantageously employed, given in the form of wine whey or milk punch every hour or two. In cases of severe type it is still more important that an antiseptic spray or application be made frequently to the inflamed infiltrated and possibly necrosed tissues of the throat, and the external application of tepid water or lead water and laudanum should be used.

During convalescence the hygienic treatment of all cases is important and to my mind there are no better germ destroyers than fresh air and sun light.

The matter of stamping out contagious disease depends upon the intelligent co-operation of the people and this can never be done until they fully comprehend contagion and its nature and understand that disease is the result of causes which can be avoided.

Mortality from Scarlet Fever has been much reduced during the last decade, due no doubt to the fact that much stricter quarantine regulations have been enforced.

Yet there are many persons, especially in the country districts, who, ignoring all such restrictions, go in and out among others from the sick room of their fever stricken children, often sending milk, butter, and fruit to market which has been handled and prepared by those who have nursed the sick.

Sanitary knowledge is a great need of the age and for lack of it, many children sicken and die every year from Scarlet Fever.

RATIONAL THERAPEUTICS.

BY R. H. HENRY, M. D., PH. D., PEOTONE.

Beware when the great God lets loose a thinker on this planet.

—EMERSON.

As a man thinks so he is. Thought is parent to the deed. Pure and ennobling thought is the highest gift of God to man.

Oliver Wendell Holmes is often upheld as an example of pure and noble thought. He was the offspring of good ancestry. For generations they were clean, intelligent, educated and thoughtful people. So the doctor was a natural product. Such as should have been.

As an illustration of the opposite I will call your attention to the Juke family of the state of New York, whose history so nicely illustrates the point in question that I use it. During a period of seven generations the kinship numbered 1,200 souls. There were less than a hundred who made good respectable citizens. But the criminals amounted to many hundreds. To care for these the state was put to millions of dollars of expense. The primogenitor was a careless, improvident fisher and trapper. A man without education, refinement, or ambition.

The Holmes family illustrates racial preservation; the other family, racial degeneracy. Man without thought and ambition is but little in advance of the brute. Unless the thought is pure and the motive elevating, he is worse than a brute. For he is the more dangerous and expensive animal of the two. Degeneracy abounds. Its earmarks are everywhere visible. Few indeed are the families that present none of its effects. The degenerate ear, the degenerate nose, the degenerate mouth and chin, and to a greater degree the degener-

ate skull, speak volumes. The degenerate voice of the rickety is familiar to all.

Degeneration is the result of natural, or rather unnatural causes; violation of the laws of health. Such as overwork, worry, exposure, under and over feeding, stimulation and dissipation.

Its causes are numerous and its effects far reaching. Degeneracy once established in a family is hard to eradicate. It will crop out along the line somewhere in the future. It does seem easier for a man to go wrong than to go right, and as a consequence he often favors rather than prevents the process. Proper marriage, healthful environment, and suitable education, will, if continued sufficiently long, wipe out degenerate traces. But with bad environment, and the lack of education, improper marriage, etc., the process goes rapidly on from bad to worse.

There are many, through ignorance and vice, who would destroy the race of mankind in a very short while, if left to themselves. Thank fortune, however, there are those who would not.

Since the time of the first Adam the destroying angel has hurled its fiery darts at man. Just as long, too, have the better elements of society labored diligently to counteract his influence. Thank God for the recuperative powers of the human race. For had it been otherwise there would not have been one healthy human being living today to tell the tale of what the Maker intended man to represent. Syphilis or tuberculosis alone would have depopulated the earth.

The use of alcohol in any form and to any extent is of questionable utility. Alcohol has no place in medicine. Centuries have been consumed in experimenting with it, yet its place has never been found. It has been used as a stimulant, as a tonic, as a febrifuge and as a remedy for any and every disease that man is heir to. It has had wonderful virtues ascribed to it. Yet after all of this shifting, experimenting, and uses in diametrical conditions, its class and use are still unknown. Now I repeat

that after a fair and impartial trial, alcohol has failed to establish for itself a place in medicine as a therapeutic agent. Such being the case, why should there be any hesitancy in relegating it to the past. I know of no other article in our list of pharmaceuticals that has been so leniently dealt with. Accepting the verdict that alcohol is worthless as a therapeutic agent, let us see whether or not its use is not detrimental. There will be no difficulty, I think, in establishing that fact. From a social standpoint there has been no doubt in the minds of intelligent people for a long time that alcohol is the bane of good society. It is a social leper, as multitudes of ruined homes will attest. More sorrow, more heart aches, more suffering and death, have been caused by its use than from any other source. Rivers of blood have flown from the crimes committed under its influence.

Alcohol is an irritant to all the tissues of the body. It is readily absorbed from the stomach, even in the pure state. From whence it is carried by the blood, still unchanged, to every part of the body. On its course it irritates all the tissues with which it comes in contact. The result is an increased growth of the interstitial tissue. That means a crowding and an interference. Then comes impairment of function with its train of evils. Now we have a pathologic instead of a normal condition. A diseased instead of a healthy being. The inebriate is a diseased man. Yea, he is more. He is a criminal. And as such should receive the treatment proper to those of his class. The inebriate is a menace to society. Besides contributing nothing of brains, morality, or hope to the community in which he resides, he is ever a source of shame and regret. His offspring cannot be depended upon. They are likely to represent anything but good. Their inheritance is an unstable nervous system and weakened vital organs. As a result many of them in early life fill consumptives graves. Contrary to a once prevalent opinion the use of alcohol even

in what is considered moderation, favors rather than retards the development of tuberculosis. I have come to look upon the former as a promoter of the latter. The demoralizing effects of alcohol far surpass those of any other known agency. Laying aside all other evils attributed either directly or indirectly to the use of alcohol, its demoralizing effect is sufficient to condemn it. The remedy lies in accepting the alcoholic inebriate as a diseased criminal, and the caring for him as such. Take him into control. Have appropriate places in each state where he will be kept and cared for and treated. He is a ward of the state in which he resides, and the state should be made responsible for his conduct. There he is to be kept until cured. Inebriety occurs in two stages, the acute and the chronic. Acute cases sometimes get well, but the chronic almost never. I am aware of no one factor, acting alone, that works such destruction to physical and intellectual man as does alcohol. But working conjointly with disease as is so often the case, its power for evil is greatly enhanced. Too frequently it is the diseased who drink. And it is certainly they who are the least likely to quit its use when once begun. The dreadful tenacity with which the habit once formed clings to its victim, is a sufficient reason for being guarded in prescribing alcohol. Lest I should be misunderstood, just here allow me to say for the benefit of some who may hold another opinion, that the disease, inebriety, is not cured when its possessor ceases to drink alcoholics. Sometimes it lingers for a long time after, with marked proneness to relapse.

I have but little faith in the so-called cures for the inebriate, when he runs at large. The excessive use of alcohol, or the moderate use regularly and long continued, produces anatomical and physiological alteration which of necessity result in pathologic and psychologic changes. These changes come on so gradually that ere the victim is aware, he is a changed man, another individual entirely. One capable of

new thought and new conduct, but by no means improved. Thought is upon a lower plane, and action in accordance with the thought. A downward movement, retrogression, degeneracy, has begun. Who can say where it will end? For "the sins of the parents are visited upon the children, even to the third and fourth generation." This is especially true of the transmissibility of the disease inebriety. More men are born drunkards than are made so by the use of drink. A fact of much interest just here is that parents need not be drinkers of alcoholics in order to transmit the taste of alcohol to their children. Many a child has inherited the taste for drink from parents who were total abstainers. Upon the other hand who has failed to see some of the brightest minds and most noble characters and perfect physiques born to alcoholic drinking parents. This at first may seem contradictory, but it is not. Indulgers in stimulating food, gluttonous feeders, tea and coffee addicts, are much more prone to beget degenerate and inebriate offspring than are the moderate users of alcohol with generally temperate habits. This is most liable to occur if the gormandizing parents are indolent, or addicted to a sedentary life. The allowing of tea and coffee, rich dishes, highly seasoned sauce, or much meat to children, is only fostering the disease inebriety. The excessive use of sweets is a very prolific breeder of intemperance. Potatoes produce degeneracy and encourage the drink habit. The question of feeding mankind is a very important one. This is especially true of children. This brings me to that division of my subject which I deem of most importance: The origin and care of the child. A responsibility of which I know no greater. There are certain things in the life of every person over which he has no control. Such are his ancestry, nativity, environment, and care and education in childhood. Matters of the greatest moment to everyone. Very potent and determinative in their influence, too. To a large extent they make or mar the future of every individual. No one should

be blamed for what he cannot help. But upon the other hand the guilty should be held for their crime. For it certainly is a crime to cause to be born an immortal being without due consideration of the awful responsibility of the act. And without contemplation of its probable future. Who am I and whence my origin, are matters of the profoundest importance to us all—coming into this life as we do with our inherited perfects and defects. My inheritance may be a tubercular predisposition; yours an hereditary syphilis. They are ours to care for. They constitute our most important dower. Whithersoever we go they go. Not as friends desirable, but as a millstone about our necks, ever dragging us downward and handicapping us in the race for life. Environment, I admit, has much to do in shaping the future of the child, but you cannot entirely educate away a child's nature. A poorly constituted child by birth, may by proper environment and care, escape disease to which he had inherited a predisposition. He may be brought to occupy a higher plane intellectually and physically, than he could have done otherwise. On the contrary, a child born to all appearances perfectly healthy may develop disease that had lain dormant through several preceding generations, and which would not have shown in this individual under good care. Who has not seen poor little half starved and poorly clad children succumb to the exanthemata, or the catarrhs, when well clad and well nourished children no stronger by birth get well. Then say you, it makes no difference? Nay, verily. But those frail children that die young are the best off. For those that live are usually a burden to themselves and a detriment to the race. They are disease contaminated and are themselves disease producers. Depreciators of the race, they fill the asylums, the hospitals, the alms houses and foundling homes. Directly or indirectly, this class constitutes the burden of society. With their inherited weakness and unstable nervous systems they fall

readily into the ways of vice and crime. Then their weight to society is felt in earnest. And if you will take the pains to investigate you will find the burden sufficiently large. Every additional half starved and poorly clad child means an additional burden to society. Every criminal in embryo, that can be kept from developing, is that much saved to the state, saying nothing of the higher and nobler work of making a better citizen. Work applied here is as near the fountain head as it can be. To obtain the control and have the care of the untaught child, is to begin at the beginning, as far as the child itself is concerned. In order to do anything more for the child we must go beyond its birth. That is, regulate its ancestry. The importance of this matter has heretofore been overlooked. Marriage, a very determinative influence, may be productive of good or of evil, accordingly as 'tis properly or improperly done. If well done 'tis a fruitful source of racial improvement. But if improperly done is a hastener of degeneracy. Few intelligent people but would give more heed to the rearing of good stock than they pay to the production of a human being. Shame upon such criminal negligence! How can we hope for any improvement while such a state of society exists? Unless there can be an interest aroused in this matter we are deprived of one of our best methods of race purification.

However, society is protected as never before against the ravages of disease. National, state and municipal health boards are the faithful watch dogs that look after the welfare of the people. Contagious and infectious diseases are met at our seaboard with "so far shalt thou come and no farther." Should they by stealth or otherwise gain admittance, then state and municipal, are joined to national quarantine with the happiest results. Cholera once swept our fair land at will, destroying thousands and paralyzing business. A visitation of that scourge now would scarcely cause a ripple in business circles. Our

last experience with that malady, which is within the recollection of us all, demonstrated that.

Yellow fever, once so fatal and so uncontrollable, has been robbed of much of its terror. Smallpox, scarlatina and diphtheria are placed under better control than formerly. Smallpox is, by the process of vaccination, walled in. And if the laws regulating vaccination were rigidly enforced, the disease would soon be completely eradicated from civilized society. Diphtheria has been so thoroughly mastered by the antitoxin treatment as to reduce the death rate in this disease from 35 per cent. or more to 5 per cent or less in some epidemics. Comments are uncalled for. Such results are a sufficient guarantee of the treatment. The antitoxin treatment of diphtheria is one of the most valuable acquisitions to the healing art since vaccination against smallpox became a fixed fact. Serum-Therapy is but in its infancy. It is the treatment of the future. The older members of the profession may, and I am very certain that the younger ones will, see the day when there will be a serum antitoxin for scarlatina, cholera, malaria, rubeola, pneumonia, and typhus, and for many other of the germ diseases. The field seems to be unbounded.

This whole line of treatment is upon purely scientific principles. The germ producing a disease, during its growth and decay, produces a toxine. It is this poison within the blood which is the direct cause of death in the individual upon whom the germ has been preying. Serum-Therapy, or what is commonly called the Anti-Toxine treatment of germ disease, is directed toward the neutralization of these toxines.

The plan is a perfectly rational one, and wholly scientific. The work done thus far in that direction has been productive of most flattering results. More time is required to thoroughly perfect the working of this treatment along all lines, and to adapt it to all those diseases to which it is applicable. For instance the Anti-Tetanic treatment used hypodermically was a fail-

ure. But used by intracerebral injections it bids fair to be a success. Time and some experimenting are yet needed. However, judging from the past we are warranted in predicting for Serum-Therapy a rosy future.

Anesthesia in surgery, vaccination against smallpox, and Serum-Therapy, constitute three of the cornerstones upon which modern medicine rests. And certainly no one would question the right of Skiagraphy to constitute the fourth.

The skiagraph, that great revealer of secrets, is the most valuable acquisition to the profession of medicine in recent times. None can estimate the good to humanity that will result from the antitoxin treatment in diphtheria alone. Yet great as are the results of this discovery, they cannot outshine the brilliancy of skiagraphy. This is certainly a surgical age. Surgery has of late boldly entered new and heretofore untrodden fields. Too often, however, blindly. With the skiagraph at command, the surgeon can now look before he leaps.

Another advance in Therapeutics, we are proud to note, is the superior forms that drugs are gotten up in. Many of the medicinal preparations are so nicely and palatably made, that it is a pleasure to take them. For this we are indebted to the pharmacist. The manufacturer of pharmaceuticals deserves great credit for the elegant preparations he furnishes the physician. I do not believe in the use of other men's prescriptions, preparations, or compounds, unless they fully meet our indications. When they do so, and are elegantly and reliably made, I use them. I am fortunate enough to be both physician and pharmacist, and know whereof I speak, when I say that the average physician knows but little of pharmacy. There should be no war between the physician and pharmacist. There never should have been. The one is essential to the other, in fact is a helper of the other.

Physicians are natural teachers. They are the instructors and conservators of the

race from a hygienic standpoint. It is to them that all health and life preserving enterprises are due. He has the welfare of humanity at heart as no one else has. He it is who knows all about us in sickness and in health, and none but him in death. He is the only one with the accumulation of scientific lore, and with his mind trained to scientific thought, capable of saying what is best for mankind. It was at his suggestion and largely through his influence that much of the sanitary legislation now upon our statutes was due. But in addition to what we have already secured, we want a law compelling the keeping of a family register. In this must be kept a complete personal record of each member of the family, with all his perfects and defects. Acquired vices must also be added thereto. And the manifestations of heretofore latent family peculiarities are to be entered. Such a record kept through many generations would be invaluable. Then when parties contemplated matrimony they should be obliged to go before a board of physicians, appointed by judges of the superior court, and present their personal history for examination by said board. After making a careful and unbiased investigation, upon scientific grounds, as to the qualifications and adaptability of the applicants to marry, this board will determine the matter. The decision rendered is to be final. Another want along this same line is a law to asex habitual criminals, confirmed prostitutes, and possessors of incurable, transmissible diseases. Such laws would, in a very short time, greatly improve the moral as well as the physical and intellectual tone of society. They would very soon, and very effectively, too, eradicate some of our worst diseases. It is well known that tuberculosis united to tuberculosis produces tuberculosis intensified. That their feeble offspring early fill consumptives' graves, if by chance they have not succumbed to the diseases of childhood. Epilepsy produces epilepsy, insanity and imbecility. Fast running into the most degenerate of the

degenerate, thereby happily terminating that strain.

I have tried, in an humble way, to point out some of the lines along which useful work may be done, and suggest methods for accomplishing that work. The limited time, owing to the crowded condition of this section, has prevented me from enlarging upon the various heads of this topic as I should have done in order to make this subject seem complete.

DISCUSSION.

DR. W. X. SUDDUTH, Chicago: I dislike very much to see such a paper as this pass without some discussion. Some of the points brought out by the essayist were excellent, and others are not well taken, one in particular. I wish to call attention to the first point that inebriety is not a disease, but the symptom of a disease. I think the clinical experience of those who are treating these cases will bear me out in that statement. In the great majority of cases it is a neurosis, a neurotic condition which calls for the sedative effects of the drug, or the symptoms lead to the alcohol that is taken. The other point raised by the essayist, that the sins of the fathers are visited upon the third and fourth generations, is hardly scientific. It does not correspond with our present observations. If I understand the essayist correctly, he seems to think that it is impossible to educate a child out of the environment or conditions in which it is born, not only in regard to diseased conditions, but moral conditions. A child taken soon enough and put into a correct environment, inside of fourteen years it will outlive every phase of the hereditary trait, unless the child succumbs to the congenital hereditary trait. The facts in the case are these, that inherited diseases are fatal in the early stages of infancy or in youth. Very few children that are born hereditarily diseased attain to eight years of age, almost never to twelve years of age. They die in early infancy. All the troubles or diseased tendencies we have inherited are kept up simply by tradition and environment. The idea of establishing a matrimonial board composed of physicians is a most happy one, and the tendency of the times is toward that undoubtedly, requiring of those who propose to enter the state of matrimony a clean bill of health. Every child has a right to be born well. Another point in connection with this matter is that when we place restrictions around legal marriage we are inviting immoral relationships, and while it is a good point, yet it must be approached gradually and slowly.

As to the point raised with reference to tuberculosis, if we could establish a clean bill of health for every person who it granted a marriage license, it would not take a generation to stamp out this disease. The veterinary surgeons are doing much more today than

physicians in restraining and controlling the spread of tuberculosis.

In regard to unsexing criminals, there is no question but what every intelligent physician takes that stand, but the old question will naturally be raised, who shall be the judges in the case?

With regard to the point mentioned of persons addicted to alcohol being on a par with criminals, it is rather too severe on the poor victim of a neurotic disposition. To call them diseased criminals and put them under the control of the state is a little further than we want to go at present.

DR. GEORGE W. WEBSTER, Chicago: It seems to me, there is the utmost confusion in the minds of men, as shown by the remarks made this afternoon, in regard to the terms inebriety and alcoholism. By the clearest thinkers and best writers upon this subject, these terms are not used synonymously, and are not interchangeable. The consensus of skilled opinion, especially of such men as Norman Kerr, of England, Richards, of England, Crothers, of America, and others whom I might name, is to this effect, that by inebriety we mean that peculiar craze which impels a man to resort to intoxication. The craze is not for the drug, whether it be opium, morphine or alcohol, but for intoxication, while the drug itself which intoxicates may be abhorrent to them. On the other hand, by alcoholism we mean all the pathological effects or phenomena produced by the ingestion of alcohol. Inebriety, a craze or craze which impels men to take intoxicants, is a disease. This is the opinion that has just been given at one of the most notable congresses that has ever been held in the world, in Paris, where more than sixteen hundred members were present, and some of the most notable men who have studied this subject were present at that meeting. The effects of alcohol may not be transmitted. Now, the synonym for inebriety is narcomania, and we therefore may have alcoholic inebriety, opium inebriety, or any other form of inebriety produced by a certain drug or drugs. There is no question but what inebriety is a transmissible affection.

MALIGNANT TUMORS OF THE EYE.

BY WILLIAM H. WILDER, M. D.

Professor of Ophthalmology, Chicago Policlinic; Instructor in Ophthalmology, Rush Medical College; Surgeon and Pathologist, Illinois Eye and Ear Infirmary; Fellow Chicago Academy of Medicine, etc.

Upon an early recognition of growths of the eyeball or its adnexa and a prompt removal of the same there depends not only the sight, but frequently the life of the patient. It is the intention of this paper to deal more particularly with those malignant growths which arise in the eyeball

itself, but a brief review of those affecting adjoining structures may not be amiss.

The orbit may be invaded through the infraorbital fissure by a tumor in the nasal or the pterygo-palatine fossa, or through its floor by a growth originating in the maxillary antrum which, by pressure, causes the destruction of the walls of the antrum and the floor of the orbit. Again a tumor may extend into the orbit from the ethmoid cells or sphenoid antrum. Such growths, according to Virchow, originate, not in the mucous membrane that lines these cavities, but in the underlying bone. Carcinoma of these parts is extremely rare, but sarcoma which is much more frequent, is usually secondary. Orbital tumors are not infrequent, for of 217 cases of tumors of the region of the face reported by Billroth, 18 were of the orbit. They may arise from the bony walls of this cavity, or from the optic nerve or its sheath, from the lachrymal gland or the cellular tissue, the latter being by far the most frequent. In a category of tumors arising in the cellular tissue would be included cysts such as encephalocele, extravasation cysts, retention cysts, dermoid and other congenital cysts, echinococcus and cysticercus, Angioma, lipoma, and enchondroma, although rare, may develop here. All these are benign in their nature and if they are early removed do not recur. A great majority of tumors of this region are unfortunately of the connective tissue type and are, indeed, sarcoma of either the round, spindle cell or fibrous variety. The same specimen may show all the different varieties. Sarcomata usually originate here, but they may appear as metastatic growths, the original tumor being in some neighboring part or even in some remote part of the body. They may arise from the lining periosteum, from the affected tissue of the orbit, or from the fibrous capsule of Tenon. We may also have cysto-sarcoma, myxo-sarcoma and cylindroma, the latter being particularly malignant, but none of these have a characteristic growth and a microscopic examination is necessary to determine their

exact character. Upon the walls of the orbit arise osteo-sarcoma and osteoma, the latter being of slow growth and usually of great hardness.

The epithelial tumors developing in the orbit are epithelioma, adeno-sarcoma and adenoma. They arise either from the lids, lachrymal gland or from the eyeball and invade the orbital tissues secondarily.

Among the symptoms of orbital tumors, exophthalmus is probably the most prominent. It is rarely absent and is more or less pronounced according to the size of the growth. The location of the tumor may be approximately determined by the direction of the protuded eye. Defective motility of the eyeball occurs either because of pressure upon the muscles of the globe, or paralysis of certain nerves, and as a result of this there follows diplopia if sight is preserved. Ptosis may also be present. Pulsation of the eyeball may be felt if the growth is an encephalocele, angioma or orbital aneurism. Disturbances of vision may arise from pressure of the tumor on the eyeball, on the optic nerve or on the ciliary nerves, and as a result of such pressure optic neuritis may develop, followed by optic atrophy. The danger of life from such growths is great because of the invasion of the brain either from an extension backward or from metastatic processes and nothing but a prompt and thorough removal of all the diseased parts gives any hope of relief.

By far the most frequent malignant growth arising in the eyelids is epithelioma, which frequently begins on or near the margin of the lower lid. It may appear as a flat, warty mass, of very slow growth, which later may show a superficial ulcer and be covered with a brownish crust. Such a form may take years to develop to any extent and does not appear to be very malignant. The cervical lymphatics do not become indurated. Another form develops as a tubercle, of the size of a small pea, which soon breaks down and ulcerates and has a tendency to extend more rapidly and more deeply than the for-

mer variety, invading the orbit and causing enlargement of neighboring lymphatic glands. Surrounding the ulcerated area is an indurated zone in which the small epitheliomatous nodules appear. The disease must be differentiated from lupus and syphilis.

Treatment should be prompt and thorough. Complete removal of the growth with the knife, followed by a plastic operation to correct the deformity is, in most cases, the safest procedure, although in a few cases I have had an excellent result by thorough curettement.

Sarcoma may affect the eyelids, but it is quite rare. It must be differentiated from an ulcerating Meibomean cyst.

The malignant tumors that affect the conjunctiva are usually epithelial, although sarcoma, which may be of the melanotic variety, is seen sometimes growing at the sclerocorneal junction. Indeed, nearly all malignant growths of the conjunctiva as well as the cornea arise in the limbus, and epithelioma is rather a frequent type of growth in this neighborhood. This may be explained, according to Fuchs, by the predilection that epithelioma has for attacking those parts where the epithelial covering changes its character as it passes from one part to another. Examples are familiar, in the frequency of epithelial growths about the anus, the lips and the eyelids. We have an analogous condition in the limbus, where the epithelium of the conjunctiva passes over to that of the cornea. A small nodule appears at the junction of cornea and conjunctiva, and grows sometimes with great rapidity. Although occurring in advanced middle life, it does not invariably do so, according to Saemisch, but may also occur in young individuals. This growth spreads over the cornea, but does not infiltrate it except when it is quite advanced. Even then it is quite easily removed from the subjacent corneal structure. It presents a grayish-white, nodulated, sometimes distinctly papillated appearance, and is accompanied at times with severe pain. Often these epi-

thelial cancers are deeply pigmented and this form grows to a great size, separating the lids and projecting from the palpebral fissure.

Tumors affecting the cornea primarily are, from the nature of the structure, exceedingly rare. As has been said, they usually arise from the edge of it, where the conjunctiva passes over into the epithelial layer of the cornea. Here sarcoma may begin. It is almost invariably pigmented, of the type known as melano-sarcoma and makes its appearance at times in a small pigmented spot which may have been thought harmless. This part of the eye normally contains pigment, more noticeable in a person of dark complexion, in whom a distinct dark ring around the cornea sometimes may be seen. It does not always infiltrate the cornea, but often grows over it, although it can be demonstrated that the epithelial layer of the cornea passes up on to the tumor. It represents either a smooth or a lobulated dark brown appearance, is firm to the touch and bleeds easily because of its great vascularity. Often a tumor in this situation is an outgrowth from a similar mass inside the eyeball, that has infiltrated the ciliary body and sclera and extended its ravages to the structures on the outside of the globe. The prognosis is grave.

The question of attempting to save the eye, when sight is not affected, by carefully dissecting away an epithelioma or sarcoma from the cornea is an important one. When the growth is small and has not invaded the corneal or scleral tissue, it may be tried with some hope of success, but I am skeptical that anything short of enucleation will suffice to check such malignant growths.

It should be remembered that the nodule may be an outgrowth from an intra-ocular neoplasm. The danger of mistaking such a case for a localized sarcoma of the scleral region is not great if reasonable care is practiced.

Tumors of the iris are not common.

Sarcoma of this part may be of the pigmented or white variety; the former is the more frequent as well as more malignant. The disease may occur at any age; as a primary tumor of the iris it is rare, being usually an extension of a growth from the ciliary body. When the growth is of the melanotic type it is easily diagnosed. When of the white variety it may be confounded with tubercle, gumma or cyst of the iris. The former will probably show a conglomeration of tubercles of a dirty grayish color, situated at the root of the iris; a gumma will not be so distinctly circumscribed and there will be a syphilitic history, while a cyst will show a pearlish reflex quite characteristic.

These growths may be so small and circumscribed as to make it possible to successfully remove them by an iridectomy. This should be large enough to excise a considerable portion of the healthy iris around the tumor. At the first sign of recurrence, enucleation should be performed to prevent further spread of the disease.

Of all tumors affecting the eyeball, those most to be dreaded occur in the choroid, ciliary body and retina. According to Noyes, tumors of the choroid are met about once in fifteen hundred eye cases. Eighty-five per cent. of such tumors are said to be sarcomata, and of these the greater number are pigmented. Sarcoma may also spring from the uveal portion of the ciliary body. (Lawford and Collins in an examination of one hundred and three cases, report six affecting the ciliary body, one in the iris, two affecting both choroid and ciliary body, and ninety-four originating in the choroid behind the ciliary body.) Usually the growth attains a considerable size before it is recognized, unless affecting primarily the region of the yellow spot, in which case the impairment in sight brings the patient promptly to the physician. It is customary to divide the clinical history of these cases into four stages:

1. A period of early growth before there is any irritation.

2. A period of inflammation.
3. Perforation of the eyeball and extension of the tumor outside the eye.
4. Metastasis.

In the first stage there may be no symptoms unless, as said before, the tumor encroaches on that part of the eye which is used for distinct vision. In this stage there may or may not be increased tension; although, as a rule, it is increased. If the physician is fortunate enough to see the eye during the first stage he may, by an ophthalmoscopic examination, discover the growth. He will then see a mass within the eye with comparatively smooth surface, over which the retina is seen to pass. The retinal vessels are convoluted because of the lobular condition of the tumor; and the retina itself is bluish-gray in color. A careful examination with a bright light may show that the tumor is vascular. The duration of the first stage varies from six months to four years. Fuchs found the average to be in sixty-seven cases, twenty-one months.

Most authors have found that males are affected rather more frequently than females. According to Lawford and Collins, 57 per cent. of the former and 43 per cent. of the latter are affected.

This is a disease occurring generally after the fortieth year; the average age of Lawford and Collins was 48.42 years. The average of 259 cases reported by Fuchs was 44.2 years. The average of cases reported by Freudenthal was 49.4 years.

With the beginning of the second stage there are signs of inflammation. The eye becomes painful and tender on pressure, the tension is increased, ciliary region injected, anterior chamber shallow and all the symptoms of acute glaucoma are present. In this stage there may also be bulging or staphyloma of the ciliary region, showing that the growth threatens to perforate the sclera. An interesting point, with reference to the subsequent history, is that the prognosis is more grave when the tension is increased; e. g., Lawford and Collins found metastatic processes more

frequent in those cases presenting increased tension before enucleation, than in those in which the tension was normal.

In the third stage the tumor escapes from the eyeball and invades the surrounding tissue. The pain and distension that were present before, now disappear because of the relaxation of the tension. The mass grows with much greater rapidity. Unfortunately many of the cases do not come to the surgeon until this stage is reached, when the chances of an ultimately successful operation are greatly diminished. The optic nerve is invaded in at least one-fifth of the cases, and the prognosis is thereby rendered more grave.

In the fourth stage metastasis occurs most frequently in the liver, though it may occur in the lungs, brain, stomach, uterus, or other organs. Fuchs found that 18.5 per cent. of his cases suffered from metastasis. Hirschberg gives 38 per cent.; and in 32.9 per cent. Lawford and Collins traced death to this cause.

One of the greatest dangers to the patient is that of local recurrence, which is diminished if the eye is removed before the tumor has reached a sufficient size to cause increased tension and local irritation. As mentioned above, the tables of Lawford and Collins show that more cases are fatal when the enucleation is performed after the tension is increased than if it is done when the tension is normal. Once the growth has burst through the eyeball, the dangers are greatly increased.

Fuchs records local recurrence in 31 out of 235 cases, or 13 per cent. Freudenthal found 25 per cent. of local recurrence, 6 out of 24 cases, while Lawford and Collins note 8.86 per cent., 7 out of 179 cases. The danger of local recurrence is greatest within the first year.

Prognosis.—Lawford and Collins, in a report of 103 cases subjected to operation, were able to trace 79; of this number 39 cases, or 49.36 per cent., were alive at the time of the report. In twenty of these, an interval of three or more years has elapsed since the removal of the primary

growth, and these are considered to be probable cures. This gives a percentage of recoveries of 25.31. The averages given by other writers vary from 6 per cent. by Fuchs to 38 per cent. by Freudenthal. Metastasis has been known to occur eighteen and even twenty-five years after the removal of the primary growth, but whether the tardy occurrence of such processes should be regarded as metastatic is certainly a debatable question. However, the possibility of such an event, even after the lapse of many years, should make the physician extremely cautious in his prognosis, even though the patient is apparently cured. The therapeutics of this question has naturally been considered in discussing the symptomatology and prognosis; it can be summed up in a few words—excise the eye as soon as possible after the diagnosis has been made.

Glioma is the only form of tumor affecting the retina. It takes its origin from either the inner or outer granular layer and in its growth may involve all the structures of the eyeball except the cornea and the lens. Histologically it is closely allied to round-celled sarcoma, being composed of small cells, sometimes with short processes, having a large nucleus and a small amount of protoplasm. It is difficult to demonstrate this protoplasm except on freshly prepared specimens. The intercellular substance is slightly fibrillar, but mostly composed of a semi-fluid material which gives the whole mass a consistency like soft brain tissue. The neoplasm is bountifully supplied with blood vessels. In its growth it attacks the choroid, causing a proliferation of the cells of that structure, and separating it from the sclerotic by spreading in the loose connective tissue between these two coats of the eye. In this way it may pass beneath the ciliary body and appear in the anterior chamber.

The tumor grows from the retina in clusters, well illustrated in the specimens, which give it a nodulated appearance often distinctly seen with the ophthalmoscope.

Foci of the growth may develop in the vitreous and choroid and spread as independent tumors. After filling the eye the sclerotic is attacked, its fibrous tissue infiltrated and softened, until the tumor escapes from the eyeball and invades the orbit. Or, even before the mass has attained a great size inside the eye, it may find a way of escape through the point of entrance of the optic nerve, along which it then extends. Having escaped from the eyeball, the neoplasm takes on a more rapid growth in the soft parts of the orbit, and soon it presses the lids apart and presents itself as a hideous fungous mass which bleeds easily. Death may be caused by extension backward to the brain, or the exhaustion consequent upon the involvement of other parts, either by continuity or metastasis.

Symptomatology.—Clinically, this disease, like sarcoma, may be divided into four stages. In the first stage there is no increase of tension and no irritation. The parents of the child may discover that it can not see with the affected eye, and that there is a whitish reflex from the pupil. This condition was named by Beers (one of the earlier ophthalmologists), “amaurotic cat’s eye.”

An examination of the interior of the eye with the ophthalmoscope reveals the growth with its nodulated surface, and possibly with the retinal vessels passing over it. Numerous smaller vessels in the tumor may be seen. As a rule, the vitreous remains clear.

In the second stage, symptoms of irritation and inflammation appear. The eye becomes painful, the tension is increased, the episcleral vessels are injected, the pupil is dilated, the lens and iris are pushed forward and the details of the interior are no longer distinctly seen. The cornea becomes cloudy and may ulcerate. In the third stage, there is perforation of the eyeball and invasion of the orbital tissues. The fourth stage ends the case with either extension along the nerve to the brain, or

metastatic processes in the lymphatic glands or other organs, chiefly the liver.

This disease is one of early childhood, occurring very rarely after the age of 10 and with greatest frequency during the first three years of life. Well authenticated cases are recorded by Knapp, Hirschberg, Vetsch, Lawford and Collins, in which the disease was congenital. Furthermore, it happens in about one-fifth of the cases that both eyes are affected at the same time, this symmetrical occurrence not being the result of extension of the growth from one eye to the other along the optic nerve, but an independent affair. The prognosis is absolutely fatal unless the eye is promptly removed.

If excision is performed during the first stage, and before the growth has invaded the optic nerve, there is some chance of recovery. The chances of cure are very slim, however, when the operation is performed in the second stage, when irritation and inflammation have already begun; and when done after the tumor has extended to the orbit, there is almost no hope, although a few cases of so-called recovery are reported, even after complete exenteration of the orbit was necessary to remove the growth.

One should not hesitate to enucleate both eyes if the growth is bilateral, for cases of recovery after double excision for glioma have been reported. Even where there is absolutely no hope, it may be the surgeon's duty* to remove the eye, and even the contents of the orbit, to relieve the little patient of his suffering.

The average monthly death-rate in Santiago, Cuba, under the Spanish regime is said to have been 250, but under improved sanitary measures carried out since the occupation by American troops, the mortality has decreased to 112 per month, and is constantly growing less, notwithstanding that a small epidemic of yellow fever has affected that district. Previous to July 19 no new case of yellow fever had been reported for a period of five days.

TRANSACTIONS OF
THE ILLINOIS STATE MEDICAL
SOCIETY.

PROCEEDINGS OF THE FORTY-NINTH
ANNUAL MEETING
HELD AT
CAIRO, ILLINOIS, MAY 16, 17 AND 18, 1898.

SECTION 2.—SECOND SESSION.

Dr. Allen T. Haight, of Chicago, read a paper entitled "Operative Treatment in High Degrees of Myopia."

Dr. J. A. Baughman, of Neoga, read a paper on "Complete Prolapse of an Ovarian Tumor through the Anus; Operation; Recovery."

Dr. Maximilian Herzog, of Chicago, followed with a paper entitled "Fatal Perforation of Partially Atrophied Uterus Post-Partum. A Medico-Legal Case."

Dr. M. L. Harris, of Chicago, read a paper entitled "Caput Obstipum Musculare."

Dr. E. Wyllys Andrews, of Chicago, read a paper entitled "Four Hundred Herniotomies by the Imbrication Method."

Dr. W. K. McLaughlin, of Jacksonville, read a paper on "The Use of Schleich's Mixture for General Anesthesia in One Hundred and Ten Operations in the Nose and Throat."

Dr. Alexander Hugh Ferguson, of Chicago, contributed a paper on "Adipose Tissue as an Etiologic Factor in Hernia."

Dr. E. Wyllys Andrews and Dr. Daniel N. Eisendrath, of Chicago, contributed a joint paper on "The Surgical Treatment of Hematemesis from Gastric Ulcer by a New Method."

Dr. A. E. Halstead, of Chicago, followed with a contribution on "Surgical Treatment of Movable Kidney."

Dr. Bayard Holmes, of Chicago, read a paper on "Adrenal Tumors of the Kidney," which was discussed by Dr. Ochsner, and the discussion closed by Dr. Holmes.

Dr. J. E. Allaben, of Rockford, read a paper entitled "Report of Some Cases in Gall Bladder Surgery and Their Sequelae," which was discussed by Dr. Wilson.

Dr. E. J. Senn, of Chicago, read a paper on "The Treatment of Accidental Wounds of the Male Urethra;" and Dr. A. I. Bouffleur, of Chicago, one on "Goitre."

The latter paper was discussed by Drs. Doepfner, Van Horn, Holmes, Van Hoosen, Hall, Chapman, and the discussion closed by Dr. Bouffleur.

Dr. Carl Wagner, of Chicago, contributed a paper on "Amputation at the Hip Joint for Sarcoma, with Report of Cases and Presentation of Patient."

The paper was discussed by Drs. Doepfner and Herzog.

Dr. J. Homer Coulter, of Chicago, read a paper entitled "Observations in Three Hundred Cases of Tonsillectomy," which was discussed by Drs. Wilson, Fairbrother, and in closing by the essayist.

On motion, the Society adjourned until 8:30 A. M., Thursday.

The annual dinner of the Society was held at the Halliday House, and the following toasts were responded to: "The Physician Himself," by Dr. D. W. Graham, of Chicago; "The Doctors on the Picket Line," by Dr. A. C. Corr, of East St. Louis; "The Capital of Egypt from Charles Dickens to Herman Justi," by Hon. W. N. Butler, of Cairo; "When Isms Cease in Medicine," by Dr. Hugh T. Patrick, of Chicago; "Cairo as a Host," by George E. O'Hara, of Cairo; "The Wifeless Doctor," by Dr. J. O. De Courcy, of East St. Louis, and "The Doctor's Wife," by Dr. George F. Butler, of Chicago.

THIRD DAY—MORNING SESSION.

The Society met at 8:30 A. M., and was called to order by the President.

The first thing in order was the report of the Committee on Necrology, which was read by Dr. O. B. Will.

The Secretary read a communication from the Ohio State Medical Society relative to organizing a national committee on medical legislation.

On motion, this communication was referred to the Committee on Medical Legislation with power to act.

The Secretary read the report of the Committee on Nominations, as follows:

President—Dr. Harold N. Moyer, Chicago.

First Vice-President—Dr. J. T. McAnally, Carbondale.

Second Vice-President—Dr. Weller Van Hook, Chicago.

Treasurer—Dr. George N. Kreider, Springfield.

Judicial Council—Drs. E. P. Cook, Mendota; D. W. Graham, Chicago, and O. B. Will, Peoria.

OFFICERS OF SECTIONS.

Section I. Chairman, Dr. H. C. Mitchell, Carbondale. Secretary, Dr. Charles D. Center, Quincy.

Section II. Chairman, Dr. Denslow Lewis, Chicago. Secretary, Dr. Carl E. Black, Jacksonville.

Section III. Chairman, Dr. George F. Butler, Chicago. Secretary, Dr. W. J. Fernald, Rantoul.

COMMITTEES.

Medical Legislation. Chairman, Dr. J. W. Pettit, Ottawa; Dr. J. W. Robbins, Quincy; Dr. William H. Wilder, Chicago, and Dr. J. A. Egan, Springfield.

Necrology. Chairman, Dr. John H. Hollister, Chicago; Dr. O. B. Will, Peoria, and Dr. E. J. Brown, Decatur.

Medical Societies. Chairman, Dr. C. W. Hall, Kewanee; Dr. J. A. Baughman, Neoga; and Dr. J. O. De Courcy, East St. Louis.

Assistant Secretary. Dr. B. B. Griffith, Springfield.

Committee of Arrangements. Drs. E. P. Bartlett, L. C. Taylor, J. N. Dixon, C. M. Bowcock, B. B. Griffith.

The President: You hear the report of the Committee on Nominations. What will you do with it?

Dr. J. W. Pettit: I move that the report be adopted as read. Seconded and carried.

The President: I will appoint on the committee recommended in the report on Necrology Dr. C. B. Johnson and Dr. E. P. Cook.

The Auditing Committee reported having examined the accounts of the Treasurer and found them correct.

J. T. McANALLY,
O. B. WILL.
Committee.

Dr. J. W. Pettit: I would like to introduce some resolutions at this time, if in order.

Dr. Pettit then read the following:

It is fitting that at the close of this session, held in Cairo, that we express our appreciation of the manifold courtesies extended to us while its guests; therefore be it

Resolved, That we most heartily thank the Committee of Arrangements for their thoughtfulness and kindness in providing the excellent accommodations for the meeting, and they and the medical profession of Cairo for their hearty co-operation in making this meeting notably successful and enjoyable; that we thank the citizens for their uniform courtesies and hospitable reception and many kind acts and special favors; that we thank Captain Halliday for special courtesy and the Halliday Hotel for the warm free hand of hospitality extended to us; also to the Woman's Club, the press of the city, and the other citizens who so immediately and continuously contributed to our pleasure and welfare while sojourning in this progressive and beautiful city.

On motion of Dr. Sudduth, the resolutions were unanimously adopted.

Dr. J. W. Pettit: I have another set of resolutions I would like to introduce at this time.

WHEREAS, Governor John R. Tanner in his official acts has shown a friendly interest in legitimate medicine, by aiding sanitary and preventing the enactment of improper medical and sanitary legislation; therefore, be it

Resolved, That the hearty thanks of the Illinois State Medical Society be extended to Governor Tanner for his fairness and firmness in dealing with these important subjects.

WHEREAS, Corbus P. Gardner, who introduced a bill in the State Senate to estab-

lish a State Board of Medical Examiners, showed great ability and loyalty to the interests of the public and the medical profession; therefore, be it

Resolved, That this Society show its appreciation of the services rendered by extending to Senator Gardner the thanks of this Society; further, be it

Resolved, That we hereby acknowledge the valuable services rendered to the science of medicine and medical progress in general by Senator Walter Warder, a citizen of Cairo, who with Senator Gardner materially assisted in the passage of a bill for an act to amend the present Medical Practice Act.

On motion, the resolutions were adopted.

Dr. J. T. McAnally: I move that the thanks of the Society be extended to the Committee on Medical Legislation and to Dr. Egan for their valuable work. Seconded and carried.

Dr. Carl Doepfner, of Chicago, read a paper on "Operative Treatment of Exophthalmic Goitre."

This paper was discussed by Drs. Brower, Kreider, and in closing by the essayist.

Dr. W. F. Grinstead, of Cairo, read a paper entitled "Why and When to Operate for Appendicitis," which was discussed by Drs. Black, Dickinson, Wilson, Lewis, and in closing by the essayist.

Dr. George N. Kreider, of Springfield, read a paper entitled "Two Affections of the Knee Joint: Gonorrheal Synovitis and Loose Body in the Joint."

This paper was discussed by Dr. Henry.

Papers by Drs. Frank B. Earle, of Chicago, Charles D. Lockwood, of Chicago, C. C. Hunt, of Dixon, J. B. De Lee, of Chicago, Edmund Andrews, of Chicago, F. Kreisll, of Chicago, F. E. Wallace, of Monmouth, and A. C. Wiener, of Chicago, were read in abstract, and referred to the Committee on Publication.

Section 3 was called to order by the Chairman, Dr. C. B. Johnson, of Champaign. Secretary, Dr. H. C. Fairbrother, of East St. Louis.

UNRECOGNIZED SMALL POX.

On August 16th a mysterious cutaneous disease was reported in the daily press, as existing at Downs, near Bloomington. It was stated that the disease, which was thought to be *impetigo contagiosa*, had been steadily progressing for six weeks, and that the State Board of Health was to be called upon for advice and assistance. On the 17th, the Secretary of the Board receiving no further information from Downs, wrote to the Board of Health at Bloomington for the facts in the case. Nothing further was heard concerning the matter except what appeared in the daily press, in which the disease was declared *impetigo*, until August 30th, when the State Board received a telegram from the supervisor at Downs Township, asking for assistance, and stating that the physicians disagreed as to the nature of the disease. The Secretary of the Board immediately requested Dr. C. S. Nelson of Springfield, a small pox expert, to proceed at once to Downs and investigate the cases. Dr. Nelson arrived in Bloomington the 30th and after interviewing several physicians who had seen the cases, proceeded to Downs, a small village ten miles from Bloomington. After carefully examining six patients, Dr. Nelson, being satisfied that the disease was small pox, and so advising the Secretary of the Board by telephone, the Secretary immediately called upon Dr. C. B. Johnson, of Champaign, President, and Dr. R. F. Bennett, of Litchfield, member of the Board, to proceed to Bloomington at once, and shortly afterwards left for that city after advising Dr. Nelson by wire that all known and suspected cases should be rigidly quarantined.

On the following day, the 31st, Drs. Johnson, Bennett, Egan and Nelson proceeded to Downs and visited the cases in doubt, and after a careful diagnosis pronounced the disease small pox of a typical character. The Board took immediate steps to see that all cases were rigidly

quarantined and that a thorough vaccination be at once instituted. The mayor of Bloomington was also requested to issue a proclamation stating the facts existing, and calling upon all citizens to get vaccinated or re-vaccinated at once, and to allow no children to enter schools, unless provided with certificates of recent vaccination.

At the time of the visit of the Board there were about fifteen cases in Downs, and from the best facts obtainable there had been at least twenty-five cases more. It was difficult for the members of the Board to understand why there had been any doubt of the character of the disease. In some cases, a few of which were of confluent type, the characteristic odor was perceptible on entering the house, and in all the eruptions were characteristic. It is understood that the slight secondary fever and the absence of pitting in those who had recovered greatly influenced the judgment of physicians who had seen the cases and pronounced them to be not variola, notwithstanding that the secondary symptoms are not always in existence, and that over two centuries ago Sydenham taught that whether pitting takes place depends on the severity of the disease, many cases occurring in which distinct typical small pox fails to leave the mark. It is remarkable, however, that forty cases of small pox could occur in a village of less than three hundred people without any fatalities.

Several new cases have occurred since the inspection of the State Board of Health. The Board in connection with the township officer, is using all possible means to check the spread of the disease, and prevent an epidemic next winter. All infected premises are carefully disinfected.

J. A. Egan, Secretary.

The Mississippi Valley Medical Association will hold its twenty-fifth annual meeting in Chicago on October 3, 4, 5 and 6.

The Illinois Medical Journal

PUBLISHED MONTHLY.

Official Organ of the Illinois State Medical Society.

Committee on Publication:

E. W. WEIS, M. D., Chairman, Ottawa.
H. N. MOYER, M. D., Chicago.
G. N. KREIDER, M. D., Springfield.

All communications should be addressed to E. W. WEIS, Secretary, Ottawa, Ill.

All remittances for subscriptions should be sent to Dr. G. N. Kreider, 522 Capitol Ave., Springfield, Ill.

The Society does not assume responsibility for any statements or opinions published in this journal.

Entered at the Postoffice at Springfield, Ill., as second-class matter.

Springfield, Ill., October, 1899.

PHYSICIANS AND THEIR FAMILIES INDIFFERENTLY TREATED.

Long experience and observation leads me to the statement that when medical men or members of their families are afflicted with disease the indifferent attendance they often receive for their ailments falls little short of malpractice. A combination of circumstances is calculated to bring this about. As far as the practitioner himself is concerned he too often exemplifies that ancient legend that a doctor who treats himself has a fool for a patient.

He either deceives himself into believing that his malady is something very trifling and will pass away without the use of medicine or else prescribes and takes at irregular intervals some drug little adapted to his diseased condition. He may confide some of his symptoms to a colleague, but is apt to minimize their severity and declines the proffered advice. He remains at his work. It is only when no longer able to make his daily rounds that he allows his good wife to call in a professional adviser. Perhaps he gets good advice and

a prescription, but the patient knows so much about disease and the effect of drugs that he declares he needs no medicine at all or needs it less frequently than prescribed. He often refuses to take his medicine at all. Thus begins a vicious circle which too frequently lands the poor, misguided doctor in his long home.

A member of his family commences to be sick. The parent comes home tired from long vigils with his patients and does not observe perhaps the marks of the malady. If he does he does not allow himself to think it anything serious. Or on the other hand he may have observed the disease correctly enough and notwithstanding his anxiety he prescribes, changes the prescription, hesitates and finally often too late does what he should have done at the beginning—calls in a brother practitioner. If the case be a chronic or obscure one the doctor confers with every colleague he meets and gets advice from each, none of which he puts in practice. Too often he delays making a serious business of the loved one's sickness, and the time for successful treatment has passed by when he calls in one brother practitioner and surrenders the patient to him. That this sketch is no fairy tale we can all agree. It should bring home some ideas to the professional reader and lead him to reform his ways when there is sickness in the family. K.

A CONVICTION UNDER THE NEW MEDICAL PRACTICE ACT.

When the medical practice act was passed last winter, if there was one clause which gave special dissatisfaction to the profession, it was that which exempted Christian scientists and faith healers from the operation of the statute. There is no

class which excites the derision and contempt of medical men to a greater degree, than these. The committee who had the bill in charge, felt their responsibility keenly in this matter, and once the bill was upon its passage, they were on the horns of a dilemma. Both the old act and the new, defined the practice of medicine, and in order to bring those who practiced Christian science and faith healing within the meaning of the act, it was necessary to say that they were practicing medicine. The committee was not prepared to take this ground.

It is more than probable that no act can be drawn which would be constitutional, which would prevent the practice of Christian science, as there is nothing that can prevent an individual from hiring another to pray for the cure of his disease, or sit with his back to him and repeat an endless formula to the effect that disease does not exist. It would also be impossible to pass a law compelling any one, when they are ill, to employ a registered physician. There are certain common law rights that are secured to every one under the constitution and these cannot be infringed or inhibited by the legislature, unless with good reason, and the law can only interfere where a nuisance is created or the public health is in danger. In consenting to the clause that nothing should be inserted in the act effecting prayers for the sick, there were no rights conferred that these people did not have under the common law, and there was a distinct advantage in the fact that it defined and limited their practice.

The application of the law, in the first case that has come under our notice, confirms the views held by the committee. The case, recently tried, was before Jus-

tice Everett, of Cook county, and was against Henrikka Bratsch, a chief disciple of one Dowie, a somewhat notorious faith healer of Chicago. The court found the woman guilty of violating the medical practice act by administering to Annette Flanders. The justice held, that within the law, the faith healer must resort only to spiritual and mental means in treating the sick. When these means are not resorted to solely and material means are used, then the law governing the practice of medicine has been violated. Even the "laying on of hands" is, according to Justice Everett's opinion, a departure from spiritual and mental means and he also held that the ordinary means of assisting nature is denied to these people, because, the court held, a physician and surgeon did only this in the practice of his profession. In giving his decision, the justice said: "In this case, it appears from the evidence, that Henrikka Bratsch was a member of a church called the Christian Catholic Church, which has, as a foundation, the curing of disease by faith. There is no question as to the right of every man to have and to hold his own religious belief, and no question as to the right of a man to call upon whomsoever he sees fit to treat him during sickness, no matter what school of medicine or school of treatment the person called upon belongs."

"There is no question but that a man can call in a person to treat him, who resorts to spiritual or mental means to cause him to recover his health. * * * * * They are exempt under the law where they treat the sick or suffering, hoping for the interposition of Providence without the use of material remedies. If Mrs. Bratsch treated Mrs. Flanders by mental or spiritual means without the use of drugs

or material remedies, then she is innocent. The whole case simmers down to this point: Even if a person does not use drugs or material remedies and does not limit himself to spiritual and mental means, he is, in my opinion, clearly liable. When the defendant resorted to physical means of any kind, by putting her hands on the decedent, then she is liable under the law. The line must be drawn sharply and right at the spiritual end, and stop there. In this case, the defendant fell back upon her experience and not upon her faith and resorted to physical means. The defendant is fined \$100 and costs."

M.

BOGUS REFORMERS.

The present law regulating the practice of medicine in Illinois was guided through the legislature by the Illinois State Medical Society, acting through its legislative committee and supported by the united sentiment of the best professional men of the entire state. Before and during the session of the legislature the committee were attacked and reviled by certain persons, among them being one T. A. Bland, who by false statements and lying letters, deceived many good men into active opposition to the law as originally drawn. Bland was effectually disposed of before the legislative committees, and the bill, slightly modified, passed. Since the law went into effect and its force has been felt by certain practitioners and medical colleges, Bland has renewed his pernicious activities. His latest move has been to organize what he calls the Illinois Union Medical Association, the officers of which are Samuel J. Avery, of Chicago, a graduate of Rush 1864; President; A. C. Cowperthwaite, of Chicago, Professor in the

Chicago College of Homeopathy, a graduate of Hahneman of Philadelphia, Vice-President; and T. A. Bland, of Washington, Boston and other places and Chicago, alma mater unknown, Secretary and Treasurer. Bland was formerly professor of the theory and practice of medicine in the Illinois Health University until the charter of that notorious institution was revoked by the Supreme Court in May, 1897, on the ground that it was fraudulently issuing diplomas. He later held a chair on the same branches in the Independent Medical College, the charter of which was revoked in February, 1899, on the same grounds, viz., diploma selling. Bland is also editor of the Medical Liberty News, was a lobbyist before the Illinois and Michigan legislatures in 1899. This choice and heterogeneous collection of medical reformers met recently at the office of A. C. Cowperthwaite in the Marshall Field building to organize for protection against what is termed by the members, "the oppressive action of the State Board of Health." As reported in one of the Chicago dailies, the preamble to the constitution is in part as follows:

"WHEREAS, The State Board of Health of Illinois, organized in 1877 as a sanitary body, has been reorganized under an act passed in 1899 as a medical examining board, clothed with such extraordinary powers as to make it a menace to the rights and privileges of every physician in the State, and

"WHEREAS, Said act of 1899 was prepared by the secretary and attorney of said Board near the close of the session of the legislature and lobbied through to its passage without the concurrent approval of the Board of Health as a body, or of the medical societies of the State, and by deceiving senators and members as to its character and intent,

"Therefore, We believe it our duty to associate together for the purpose of pro-

tecting our professional rights and privileges against any unjust action of the Illinois State Board of Health, and also for the purpose of securing the repeal of the medical-practice act of 1899, the abolition of the State Board of Health in its present form, and a substitution therefor of a board of sanitation, whose members shall be chosen by the people as other State officials are chosen."

To those well acquainted with the history of medical legislation in this State it is unnecessary to point out the falsehoods in these preambles. For the enlightenment of all it should be stated that the State Board from the time of organization has always been a medical examining body, and that its powers now are what they have been since 1877. These powers need not be and are not feared by any honorable practitioner in the State, and there is not a case on record where the State Board of Health has been found oppressing the right and upholding the wrong. On the contrary, for twenty-two years the Board has endeavored to the extent of its powers to drive from the State those mercenaries who bring disgrace on the cause of medicine and medical education. It has always had the opposition of this class of men, and as long as such exist will always expect that they will use every means to annihilate the Board.

The second preamble is so nearly false in toto, that no further statement need be made concerning it. The meat of the efforts of the reformers is found when they resolve to secure the repeal of the medical practice act of 1899, and the abolition of the State Board of Health. The active member in the Illinois Union Medical Association is Bland. It is past belief that a representative of the Chicago College of Homeopathy should allow his name to be

used by the mercenaries of the Independent Medical College, and it is to warn all members of this Society and honorable men of the State from falling into such disreputable company that this statement is made.

K.

THE SANITARY CONDITIONS OF PRISONS.

The recent death of a life convict from consumption, at the Illinois Penitentiary at Joliet, throws a side light upon the sanitary conditions of our prisons, and has incidentally, through the comments of the public press, called attention to the discussion of sanitation in prisons which has been going on for some time in various philanthropic and reform associations. Not that the death of a single convict from consumption is so unusual as to attract public attention, but the charge is directly made in this case, that the death was due to the unsanitary surroundings of the deceased.

The sanitary condition of our public institutions should be beyond criticism. The Government, through its public health boards, is constantly enjoining upon the people, the observances of sanitary laws; what effect will these injunctions have, if they, in the care of their public institutions violate all primary sanitary laws? These places should ever be an object lesson to the public, in hygiene and sanitation. Their inmates are subject to discipline and control and their sanitary conditions should be above suspicion. That the sanitary conditions of many of our prisons are deplorable in the extreme, is shown by Dr. Blake, the inspector of prisons of Alabama, who declares that in that state, within sixteen years, the percentage of convicts who died of consumption had risen

from seventeen to nearly thirty-seven per cent., while in one year, more than fifty per cent. of all deaths had been from that one disease. It was also shown that in the prisons of Mississippi, Texas, Georgia, and Virginia, the mortality from tuberculosis has steadily and rapidly increased. In Texas, sixty-six per cent. of the total number of deaths in 1896 were caused by consumption.

There is no question but that the death rate of convicts will always be high, even in the best regulated prisons. The mental depression associated with confinement, the frequently reduced physical condition in which prisoners are received, and the monotony of the life, within doors, will always give a high death rate. These conditions, however, have always been constant, and are present in smaller prisons as well as in larger ones, but there is no reason why death from a single infectious disorder should have increased a hundred per cent. or more, while the death rate from this disease outside of prisons has been diminished by like figures. The whole subject calls for a thorough investigation by our public health service and a determined effort to lessen the death rate from tuberculosis in prisons. Especially do prisoners need to be looked after in this respect. Their liberty is taken away and they are compelled to live under such conditions as the Government prescribes.

M.

ANENT TUBERCULOSIS.

The *Medical and Surgical Review of Reviews*, July, 1899, sums up the general verdict of the Tuberculosis Congress at Berlin, as follows:

"Tuberculosis is not hereditary; that

the remedy lies in prevention more than in cure, and that the more healthy the surroundings, the more rare the disease. This is no new discovery, but it is a justification of the claims long ago made, and oft repeated, that unhealthy conditions of life—insanitary and overcrowded houses, unhealthy and exhausting labour, defective drainage, impure air, deficiency of water supply, unwholesome and insufficient food, and exposure to damp and cold, are the principal causes of tuberculosis, as of most diseases, physical and moral."

This quotation from the *Review*, which is said to apply to millions of the poor in London and other large cities, is equally applicable to a considerable proportion of the inhabitants of our American cities. The movement which was inaugurated by the Tuberculosis Congress at Berlin, has found its reflex in many of the cities of the American Union. Recently Chicago inaugurated a movement for the purpose of stamping out tuberculosis. That the fight will not be directly against the bacillus of tuberculosis, but must be directed to the physical regeneration of the race, is self-evident. An improvement in sanitary arrangements, relief from overcrowding, and abundant and pure water supply, are flank movements, which will alone do more to eliminate this dreaded disease, than tons of antiseptics and serums. The disease once established, must be treated, and undoubtedly many patients can be saved who have already contracted the disease, provided the treatment is begun before there is much infiltration of tissue. The best way to treat tuberculosis is not to have it, and its prevention means a perfection of sanitary arrangements, the details of which can hardly be perfected in a generation.

M.

Correspondence.

In speaking more in detail of the co-incident relations of the Society, its legislative committee and the Board of Health, I hope I may not elicit any acrimonious criticism that will detract from a clear and well formed idea of these relations; so that in the future it cannot be said that there is no well matured plan of work in this important matter. It must be conceded that these relations must be discussed so as to establish in a tangible way and form some source or spring of action. In doing this something must be said as to where these relations are tangent so that the proper adjustment of the machinery may be recognized by its essential parts. I think more properly the legislative committee and the Board should be adjuncts of Section 3, that of Etiology, State medicine and Medical Jurisprudence because that is the section to which their reports should be made. They both should make an annual report from which, if that section can be made popular enough, they ought to receive their instruction and from which supervision should emanate. I think I hear the rejoinder, why not let it report to the general session and there receive its instruction as heretofore. That has so far done well enough but there may an emergency arise when it would desire instruction, the Society not in session and could not be convened; when, if the constitution and by-laws so provided, the calling of the president, the chairman and secretary of Section 3 together would suffice. I am not advising, but suggesting that the machinery is not quite perfect for all considerations.

In my presidential address when discussing the question of perfecting the scope of duties of the legislative committee, I suggested that a part of its duties must be that of the prevention of pernicious legislation as well as to promote that which is needed and useful for the public good. That and the fact that the Society or leg-

islative committee ought to have an attorney was well illustrated by the Hamilton Granger correspondence, quoted in that address relative to the osteopath bill then pending. It occurs to me that this somewhat new work added to the purview of the legislative committee and its touch with the State Society somewhat better defined will facilitate its work very much, and if it can have the interested support of the membership of the parent Society in all its departments the efficiency of the committee will be greatly enhanced.

I know there has been some witting or unwitting embarrassment in the committee on just these points.

It might be better to have this committee instructed in the meantime by the judicial councils or the executive committee, because the *time may come* when it will be necessary for this committee to don its accoutrements and hie to the capitol with all possible alacrity to prevent the passage of some pernicious measure that has sought to take us unawares.

I deem it important to suggest these matters here so that some well devised and harmonious plan may be arranged so that any emergency may be met without confusion, and Illinois be enabled to regain the proud prestige she so well held of having the best and most progressive State regulation of the practice of medicine in the Union.

The present legislative committee is well nigh unobjectionable, and when it takes more fully into its purview the idea that its duty is as much to prevent pernicious legislation in State and sanitary medicine, and in the regulation of the practice as to promote and facilitate desirable legislation on the same points it will be more perfect and potent for good.

The former law regulating the practice of medicine since its enactment in 1877, and its amendment in 1887 has been several times threatened with unconditional repeal; and as many times petitions have had to be circulated to the profession and the intelligent laity to prevent it. For

several years after its enactment its rigid enforcement did not dare to be urged for fear of such repeal. The events of the past year before the legislature in procuring the enactment of the present substitute law has set aside the probability of any effort at unconditional repeal. There are very few quacks or laymen that do not want some kind of a regulating statute. The fact that the present law has been passed in despite of all opposition settles that question and in that the committee deserves commendation.

That fear out of the way such amendments as the law may need to perfect it reasonably well can be most assuredly and easily secured.

But remember always that the legislative committee is a creature of the society detailed for a special work in their associated capacity, and that it should have interested attention and cordial support.

The third section of our State programme is the moral section of the society's transactions. This is the section in which the members should contribute the results of their long practice in all the moral phases of medicine. This section, embracing *Etiology* and *State medicine* evidently includes *sanitation*—moral and physical—as is implied by the next following word, "*Jurisprudence*," meaning not only *jurisprudence* in medicine, but the same between men, a *right conduct*, is like the moral faculty of our mental complex, the best and highest results of our long cultivation.

The discussions in this section should display the very highest attainments of our very complicated educational machinery, and should show the highest medical morality in abstract, and should show the highest developments of the relations of our science and vocation to the common weal of the human family, and should embrace not only the physical well-being of the citizen of the State, but the cause and nature of crime as well.

This is why I attach, in a mere formal way, in these correspondences, the legisla-

tive committee and the State Board of Health as adjuncts to this section.

On account of the very great importance of the matter that may be embraced under this section it should elicit and receive more attention from, and among the older, more constant and experienced members.

Carlinville.

A. C. Corr.

County and District Societies.

One of the oldest and best societies in the State is the Morgan County Medical Society. For thirty-two years almost without a break, monthly meetings have been held in Jacksonville. Two years ago, in order to increase the membership and influence of the society, a monthly journal was instituted and is issued regularly by a board of editors, nine in number. The journal now contains thirty-two pages each month, is carefully edited, contains the transactions of the society, issues an edition of 1,000 copies and is largely supported by the advertisements. As a direct result of the monthly publication the membership and attendance has about doubled and the members have been stimulated to more and better work. The August meeting was attended by sixteen members and three visitors, the largest August meeting in the history of the society. One name was proposed for membership.

Dr. J. W. Hairgrove reported hysterectomies for complete procidentia and carcinoma. Also a boy who had lost three inches of the lower end of the radius and still retained considerable motion.

Dr. Carl E. Black reported the refusal of the Wabash Railroad to transport to the hospital in Jacksonville a patient suffering with typhoid fever. The doctor thought the position taken was likely to work serious harm and inconvenience to many typhoid patients who might be transported to the hospital or elsewhere, and secure better treatment.

Dr. Josephine Milligan reported on three

cases of enlarged thyroid treated with thyroid tablets with good results.

Dr. Edward Bowe reported a case of tetanus successfully treated with Pasteur anti-tetanic serum.

Dr. C. E. Black reported several fatal surgical cases and drew valuable lessons from them.

Dr. G. A. Maness reported a case of transient paralysis.

Dr. A. L. Adams read a paper on "Catarrhal Deafness," which is printed in full.

In the editorial columns we find the following: "The first two numbers of the Illinois Medical Journal, the official organ of the Illinois State Medical Society, have come to hand.

The publication is a very neat forty-eight page journal, in much the same form as the journal of the American Medical Association, although the page is not quite so large. It is intended, besides publishing the papers read at the State Society and a report of the business transacted, to also publish other items of special interest to the members of the Illinois State Society. Among these other heads we notice "Correspondence," under which all current medical topics can be discussed freely. "State Items," which for the most part are personal notices of the doings of various members of the Society. "Chicago News Items," which gives items of special interest to Chicago members.

A very important department is that of "County and District Societies," in which is published the proceedings in brief of the various county and district societies of the State.

This journal also contains a list of the medical societies of the State which are associated with the State Society, giving their officers, time of meeting and other items of interest regarding them.

We think this publication will accomplish great good for the State Society, as it will be far more alive than the bound volume of transactions which appeared once a year. On the average the printed

transactions will come to our hand as quickly in a journal as through the bound volume.

One refreshing point of interest about this journal is that it contains no advertising matter. Everything in it, including the outside of the covers, pertains to the Illinois State Medical Society. It is an Illinois State Medical Society publication throughout, and cannot but do great good for that organization. The secretary, Dr. E. W. Weis, of Ottawa, and the treasurer, Dr. G. N. Kreider, of Springfield, deserve great credit for their untiring efforts to make this publication a success, and we congratulate them and the society on the appearance of the first two numbers, which are certainly very creditable.

Some medical journals which aspired to become the official organ of the society, and others that were afraid the publication of the Illinois Medical Journal might interfere with their business, have emitted critical editorials in advance which we trust the future will not bear out."

STATE BOARD OF HEALTH ITEMS.

RESOLUTIONS RELATIVE TO THE PRACTICE OF "ASSISTANTS," ADOPTED BY THE ILLINOIS STATE BOARD OF HEALTH, JULY 11, 1899.

WHEREAS, It has been brought to the knowledge of the State Board of Health that a number of physicians throughout the State have in their employ, or are otherwise associated in the practice of medicine, with certain non-licensed and unqualified practitioners; and

WHEREAS, The Act to Regulate the Practice of Medicine in the State of Illinois, approved April 24, 1899, in force July 1, 1899, declares that: "Any person shall be regarded as practicing medicine, within the meaning of this Act, who shall treat or profess to treat, operate on, or prescribe for any physical ailment or any physical injury to or deformity of another;" and makes no provision for the

practice of medicine by any persons excepting those who have received certificates from the State Board of Health; therefore be it

Resolved, That the State Board of Health regards all such assistants or associates as practicing medicine within the meaning of the Act, whether such persons practice under the direction of, are employed by, or are otherwise associated in practice with licensed physicians, and the Board strongly condemns the subterfuge which is being employed to evade the law; and be it further

Resolved, That, in the opinion of the Board, any physician who associates himself in the practice of medicine with any person who practices medicine in violation of the law thereby becomes a party to such violation, and, consequently, becomes guilty of unprofessional conduct within the meaning of the Act above quoted.

Published by order of the Board.

J. A. Egan, M. D., Secretary.

FORMALDEHYDE A POOR DISINFECTANT.

The State Board of Health has just concluded a series of experiments in aerial disinfection by the use of formaldehyde, which have been conducted during the past eight months, principally at the State Laboratory at Urbana, under the direction of Professor T. J. Burrill. Tests were made upon various lamps and generators producing formaldehyde from methyl alcohol, and upon different apparatus regenerating the gas by the heating or boiling of the 40 per cent. aqueous solution. Exhaustive experiments were also carried on with the method of spraying suspended sheets with the 40 per cent. solution, which has been recommended by some states and municipal health departments, and is now used exclusively by the various railway companies as a means of disinfection.

From the Secretary of the Board it is learned that the results obtained were in the main, unsatisfactory. All portable generators producing formaldehyde by the oxidation of methyl alcohol, were found to

be unreliable and in many cases worthless. Surface disinfection even, was seldom accomplished, and the gas apparently possessed no penetrating power whatever. This it is thought is due to the fact that by this manner of generation but a small quantity of the alcohol is converted into formaldehyde. Better success was attained with the machines evolving the gas from the solutions, but the effect upon cultures was not constant, the action of the gas seemingly being entirely dependent upon atmospheric and other conditions prevailing. Surface disinfection while sometimes complete, was frequently not obtained, even in the presence of organisms the least tenacious of life. As with the generators using methyl alcohol the penetrating power of the resultant gas was almost *nil*.

Little better results were obtained from the vapor of formaldehyde exposed in the room by spraying sheets hung across it, with quantities of the 40 per cent. solution, commercially termed formalin, although repeated tests were made during a period of three months in the most painstaking manner, and under varying conditions, the majority favorable for the effective action of the vapor. The experiments were conducted in living rooms, stores and railroad cars by skilled investigators. It was found that practical disinfection by the use of 150 c. c. of formaldehyde per 1,000 cubic feet—the quantity commonly recommended and used—could not be satisfactorily accomplished. By considerably increasing the amount of the material in proportion to the space, disinfection, so far as freely exposed (not covered) bacteria are concerned, was found to be possible. In experiments attended with success it was found necessary to use 250 to 300 c. c. of formaldehyde per 1,000 cubic feet, 250 c. c. being the smallest amount that could be relied upon to destroy dry bacteria.

This method of disinfection was found to be influenced greatly by the temperature of the room, the relative humidity of the atmosphere and the character of the contents of the room. As with the gas produced by the oxidation of wood al-

cohol or liberated by the action of heat on the solution, no results could be obtained when the thermometer showed 50° F. or below.

It being evident from the experiments made that formaldehyde as employed in the tests conducted, cannot be relied upon as an efficient germicide, the destruction of pathogenic organisms being accomplished only under certain conditions not always at hand, the State Board of Health in the light of its present knowledge does not recommend the agent as an aerial disinfectant. Pending further investigations by the Board, physicians and local health authorities are advised to use and recommend sulphur dioxide in the proportion of 4 pounds to each 1,000 cubic feet of air space, burned preferably in the presence of moisture, the time of exposure to be at least twelve hours and longer if possible. The Board further recommends that the use of sulphur be followed by a thorough washing with a 1-1000 solution of mercuric chloride, especially if the time of aerial disinfection be limited, and in all cases by a liberal application of fresh air and sunshine if procurable.

The Marine Hospital Service has obtained the same results as shown by the following dispatch:

Washington, Sept. 23.—Past Assistant Surgeon E. K. Sprague has submitted to Surgeon General Wyman a report of experiments conducted by him in the hygienic laboratory at Washington for the purpose of determining upon a rapid and efficient means of disinfection with formaldehyde, combined with dry heat in a vacuum chamber.

The report is published in full in this week's Public Health Reports, which will be ready for distribution next Monday.

From the conclusions reached, Doctor Sprague desires it to be distinctly understood that he does not recommend formaldehyde, even when combined with a high degree of heat, as a disinfecting agent upon which reliance can always be placed for the treatment of articles requiring much penetration.

"A review of the experiments will show," he says, "that in twelve series in which the quantity of formalin mixture varied from 360 c. c. to 1,000 c. c., or, taking the ratio given from one to five, and one to two, mattresses and pillows were sterilized; but in two series in which the proportion of the mixture was as one to five the mattresses and pillows were not penetrated. A critical examination of nearly all the published experiments with this agent also reveals instances in which organisms that there was every reason to expect would be killed have survived, and vice versa. It is that occasional unaccountable uncertainty of action that calls forth the warning not to attempt disinfection with formaldehyde in a case in which there is any doubt as to the result."

ABOUT THE JOURNAL.

The *Indiana Medical Journal* for August, 1899, compares the society of that state with those of Illinois and Pennsylvania. After quoting nearly two pages from the July issue of the *Illinois Medical Journal*, the editor, A. W. Brayton, of Indianapolis, concludes:

It will be seen, by comparison with the great States of Illinois and Pennsylvania, that Indiana has a much more perfect and successful organization than either of these great States.

Indiana has 1,535 members, and 75 of her 92 counties have fully organized societies; nearly 400 members of the Indiana State Society are members of the American Medical Association; 100 were in attendance at the Columbus meeting. The pillar of Indiana's strength is the fact that whoever is a member of the county society is also a member of the State Society without additional expense. The secretary of the county society pays \$1 to the State Society for each member, so this year the State Society receives \$1,535. Then each member gets the annual proceedings, a well-bound book of 600 to 800 pages, without additional cost, from its secretary.

Indiana recognizes no city or district so-

cieties—only the county societies. Her medical organization is the most thorough, economical and efficient in the sisterhood. The members would never consent to the publication of a monthly journal of the society in place of the annual book of proceedings. The society virtually has such a journal in the *Indiana Medical Journal*, which, by tacit consent and almost universal subscription, is really the organ of the State Society. For several years it has published the essential proceedings of the society and distributed them within ten days after the meeting.”

The *Pennsylvania Medical Journal*, the official organ of the Medical Society of that State, for August says:

The Illinois State Medical Society, at its annual meeting in Cairo in May, resolved to hereafter publish its transactions in journal form, and in keeping with this resolution, the first number of the ILLINOIS MEDICAL JOURNAL was issued in July. It presents a neat and creditable appearance, absolutely void of the too common evidences of commercialism which disfigures so many journals, and a perusal of its pages gives evidence that it is published in the interest of the members of the society of which it is the official organ, and of purely scientific medicine. The editorial committee, comprised of Drs. E. W. Weis, of Ottawa, H. N. Moyer, of Chicago, and G. N. Kreider, of Springfield, is deserving of much praise for the general make-up, and especially for the ethical tone that characterizes the first number. We predict an influential and worthy future for the ILLINOIS MEDICAL JOURNAL, conducted on the plan of the initial number.

Dr. O. B. Will, ex-president of the Society, and editor of the *Peoria Medical Journal*, in the September issue expresses the following sentiments concerning the Journal of this Society:

“The genial and accomplished editor of the *Medical Fortnightly* takes us gently

to task for attempting to criticise the wisdom of journalizing the transactions of the Illinois State Medical Society. Respecting that, we may be pardoned for the supposition that expressions of opinions and preference were what the committee desired on the part of the membership, and we were only voicing the sentiment entertained by ourself and many others with whom we have had the opportunity for consideration.

Anent this subject we see in a late number of the *Jour. A. M. A.*: some correspondence from Dr. Reed, one of its trustees, now in Europe in attendance on the meeting of the British Medical Association, in which he comments on the fact that out of a membership of over seventeen thousand only eight or nine hundred were present at the meeting. It merely serves to further illustrate what we have been contending, that while journalism can and may increase the nominal, it will rather tend to decrease the working membership. With the free distribution of the transactions there ceases to be any special incentive to attendance outside the actual contributors, and they get to and away from the meeting just as speedily as possible. We reiterate that in our opinion the innovation will tend to the disintegration of the scientific interest and value of the society, while it may possibly be of some political importance. The welfare of the society has for a quarter of a century been the interest of the writer, and it is for that reason that he views with alarm the adoption of a method which close observation of other attempts of the kind shows is not conducive to the establishment of character and compactness of influence.”

J. A. Shreck, Cameron: I feel the importance of such an association; also, the need of wise legislation and a bold support and enforcement of all good laws now in force, and will gladly give what assistance I can to the Illinois State Association in bringing about a bettered condition of affairs.

DeLaskie Miller, Chicago: I cheerfully enclose my check for I approve the present plan adopted by the Society.

W. C. Cole, Jacksonville: I feel as though we now get value received for our money, whereas before the present plan of issuing the Journal, I am frank to admit the dues went grudgingly for I felt that we got very poor returns from our investments.

W. G. Putney, Serena: I am very much pleased with the copies so far published, and believe that the State Society has at last started in a course that will add a thousand fold to its worth and utility.

J. D. Colt, Litchfield: I like the Journal.

C. H. Lovewell, Chicago: I am in full sympathy with the Society in its efforts to protect the profession.

J. Palmer Matthews, Carlinville: I am much interested in the Journal and wish it success.

A. B. Boone, Chandlerville: The Journal is a success.

C. B. Brown, Sycamore: The Journal is away beyond the old style of proceedings. It will be read, the other put on the shelf.

C. A. Jennings, Delavan: I like the present way of issuing the Journal better than the old Transactions.

A. R. Small, Chicago: The Journal is all right. Keep it going.

J. W. Boyles, Clay City: The idea of getting the transactions in the form of such an elegant journal is certainly a bright one, and seems to me would meet the approval of every individual member. It is strictly up to date. Success to it.

W. F. Matson, Monticello: The object is worthy and the plan good. We note in our laws at the present day nothing militating against the lawyer, for the reason is clear that he would scarcely aid anything against himself or legal friends, therefore they (the laws) favor lawyers. I would suggest our laws should be modified to read as the State of Ohio, whereby we

have the same power to sue and recover as the mechanic's lien on property. Hoping much good may result from united action, I am with you heart and hand.

The following have paid dues during September:

W. C. Cole, Jacksonville.
DeLaskie Miller, Chicago.
R. Boyd Miller, Millington.
J. E. Prather, Glasgow.
W. G. Putney, Serena.
F. M. Coppel, Havana.
John C. Webster, Chicago.
John H. Gardiner, Mahomet.
S. H. Wilcox, Shattuc.
H. W. Smith, Roodhouse.
N. N. Vance, Bement.
R. Peterson, Chicago.
J. D. Colt, Litchfield.
C. H. Lovewell, Chicago.
J. Palmer Matthews, Carlinville.
W. J. Seely, Red Bud.
H. B. Boone, Chandlerville.
C. B. Brown, Sycamore.
J. A. Shreck, Cameron.
F. P. Eldridge, Greenvew.
C. A. Jennings, Delavan.
E. A. Scherrer, E. St. Louis.
J. T. Legier, Serena.
P. L. Markley, Rockford.
J. Akester, Farina.
W. J. Calhoun, St. Charles.
W. F. Matson, Monticello.
A. R. Small, Chicago.
J. H. Miller, Pana.
C. G. Johnson, Galesburg.

BEEF TEA.—Mrs. Rohrer, the famous cooking teacher of Philadelphia, gives the following recipe:

1 lb. chopped beef.
1 pt. cold water.
 $\frac{1}{4}$ teaspoonful celery seed.
1 bay leaf.

Allow to soak at least 2 hours. Then heat to 165° or until it steams, strain through sieve. Beat white of egg and stir in tea. Heat an instant. Strain again through cheese cloth laid in sieve.

State Items.

Dr. R. A. Felt has removed from Galesburg to Knoxville.

Dr. C. D. Wright of Rochester, has removed to Springfield.

Dr. L. C. Taylor of Springfield, is in Michigan for his health.

Professors D. R. Brower and Nicholas Senn have returned from Honolulu.

Dr. Jos. B. Haven, of Chicago, has been appointed consul to St. Kitts Island, West Indies.

The new addition to the Springfield Hospital on North Fifth street has been completed.

Dr. E. W. Weis of Ottawa, is in the Indian Territory enjoying his annual vacation with rod and gun.

Dr. and Mrs. John Mills Mayhew, 870 Warren avenue, Chicago, have held post nuptial receptions each Wednesday during September.

Dr. C. M. Galbraith, of Carbondale, has been appointed lieutenant and assistant surgeon of volunteers, and assigned to the 47th Infantry Vols., at Camp Meade, Pa.

Announcement is made of the wedding of Dr. W. A. Young, of Springfield, to Miss Callie Johnson, of Carbondale, which will occur the latter part of October. They will reside in Springfield.

Dr. E. V. D. Morris, of Galesburg, has purchased and is using in his practice an automobile. He has entered his machine for a \$2,000 racing contest with a machine from Peoria. Dr. Morris is probably the first physician in the State to employ the "vehicle of the future."

Dr. Frank B. Fisher has resigned the position as house surgeon at the Wabash Hospital, Springfield. The place will be assumed by Dr. J. J. Horner, late of the Provident Hospital, Chicago.

E. A. Scherrer, of E. St. Louis, is filling the position of contract surgeon in the regular army, and stationed at San Carlos, Arizona Ter. He desires to keep in touch with the society as he expects to return.

Mr. and Mrs. Milton Friend announce the marriage of their daughter, Miss Minnie Friend, to Dr. Julius Grinker on September 17. Dr. and Mrs. Grinker will be at home after October 15 at 445 Dearborn avenue, Chicago.

The marriage is announced of Miss Katherine Maria Cook, daughter of Dr. and Mrs. E. P. Cook, of Mendota, Ill., and Mr. Frederick Henry Haskell, Jr. Mr. and Mrs. Haskell will be at home at Mendota after October 11.

Dr. Enoch W. Moore, an old practitioner of Decatur, and veteran surgeon of the Civil War, died recently in Texas. He was examined in 1862 by the Illinois Army Medical Examining Board and given a license to practice.

Dr. Chas. K. Cole of Helena, Mont., recently elected president of the Rocky Mountain Inter-State Medical Association, began the practice of medicine in Jacksonville, Ill., in 1879, but soon thereafter removed to his present location, where he has acquired fame and fortune.

WASTE OF MONEY.—"I don't mind sayin' I'm disappointed in that boy of mine," observed Farmer Brumback. "I've spent mighty nigh \$3,000 makin' a first-class doctor of him, and when I asked him the other day what would cure a wart, I'm darned if he could tell me!"—Chicago Tribune.

Medical Miscellany.

Joseph Jefferson studied medicine early in life and was intended for a physician. He attributes his good health to strictly keeping the rules which he laid down for himself while an enthusiastic medical student.

A gentleman who has been spending the season at Atlantic City, the most frequented of all ocean resorts, writes: "I meet men of every profession except doctors at this summer resort. I believe they take less relief from their work than any other class."

The plague has already damaged the trade of Oporto to the amount of one million dollars, besides closing the public schools and shutting the citizens off from communication with the outside world. It is such arguments as these that bring sanitary truths home to the people.

Dr. Samuel Smiles, the veteran author of "Self-Help," says that he started life as a doctor in a small Scotch town, but as there were eight other physicians, he gave it up and took to journalism. He afterwards became secretary to a railway company, in which capacity he met the Stephensons. His first book was a life of George Stephenson.

Sir Michael Foster's biography of Claude Bernard in the "Masters of Medicine" series shows that the distinguished French scientist was a physician first and a physiological investigator second. All his researches were begun with the object of throwing light on some obscure disease, and, if possible, discovering its cure. Thus, his discovery of the glycogenic function of the liver arose out of his inquiry as to the cause and cure of diabetes. It seems that Bernard began his career in a druggist's shop, where all the shop sweepings were converted into a panacea for the deserving

poor, and this revelation so disgusted him with the practice of medicine that he turned to literature for a time.

In the current number of the *Outlook* Ian Maclaren writes of what he considers "The Shadow on American Life." He conceives it to consist in "the strength of the secular spirit, or the tendency to give an undue place to the value and influence of wealth." The chief interest of the American reader in the message of this friendly critic lies in the facts he cites in support of his observations. He does not deprecate enterprise or the right of every man "to receive a due reward for his labor or to reap the profit of his foresight." The worker need not pretend indifference to his wages, but "the secular spirit appears, not in a man's industry nor in his payment, but in the attitude of his mind toward the money which he has earned and received." To make the application as Dr. Watson himself makes: "The clergyman ought to preach, because he is charged with a message, and the man of letters to write, because he has something to say about life; and the lawyer to plead cases, because he wishes justice to be done; and the physician to use his skill, because he desires to relieve suffering; and the merchant to buy and sell, that he may supply the wants of the community." The man, in short, must have an ideal, and if he is not touched with this and follows his calling merely for the gain of it he is a "mere mercenary."

The *Chicago Tribune* for a number of weeks has been issuing a sheet each Sunday containing articles on the notable achievements of the passing century. No. 9 of this series relates to the triumphs of medicine and was written by Dr. Geo. F. Butler. The article is illustrated by photographs of Pasteur, Koch and Roentgen, Laennec, Morton and Long. As given by Dr. Butler the important events in medical history of the nineteenth century are: 1800—Founding of scientific histology and pathology.

- 1808—Development of auscultation.
 1809—The first successful ovariectomy by Dr. Ephraim McDowell.
 1815—Publication of Laennec's work on the use of the stethoscope.
 1816—Discovery of function of spinal nerves.
 1834—Discovery of the cause of itch.
 1834—Discovery of the trichina spiralis.
 1836—Development of homeopathy.
 1839—Skoda introduced scientific physical diagnosis.
 1839—Discovery of the cause of favus.
 1846—Discovery of ether as an anæsthetic.
 1846—First serious surgical operation performed under the influence of ether.
 1847—First use of chloroform as an anæsthetic.
 1857—Pasteur demonstrated truth of vitalistic theory.
 1860—Discovery of cocaine.
 1867—Lister published results of his labors in antiseptic surgery.
 1877—Pasteur proved the bacillar origin of anthrax.
 1879—Discovery of bacillus of typhoid fever.
 1880—Pasteur published his results on attenuation of virus.
 1881—Pasteur rendered animals immune to anthrax.
 1882—Discovery of the bacillus of tuberculosis.
 1883—Discovery of the bacillus of diphtheria.
 1885—Pasteur first successfully inoculated patients against hydrophobia.
 1889—Discovery of the tetanus germ.
 1891—Murray first used thyroid extract in the treatment of disease.
 1892—Behring announced the discovery of the antitoxin of diphtheria.
 1896—Discovery of the X-Rays by Roentgen.

The Lake County Society has elected J. C. Foley President and A. C. Haven Secretary-Treasurer.

THE PRESS AND PULPIT ON CHRISTIAN SCIENCE AND FAITH CURING.

Attorney General Akin has rendered an official opinion to the effect that the treatment of diseases by so-called spiritual or mental methods is not an offense under the criminal code of Illinois. This is an additional reason why the next legislature should pass a law forbidding such treatment for infants or children. A man or woman who has reached years of discretion is supposed to be a competent judge as to what treatment he or she shall have in case of illness. If some adults think they can get any benefit from Christian science, or mind cure, or the prayers of Dowie, they have a right to risk their lives under this sort of treatment if they so desire. But small children should be protected from the ignorance or charlatanism that deprives them of skilled medical treatment in case of dangerous illness. Whatever virtue there is in mental or faith cures arises out of the faith of the patient and the power of auto-suggestion. Infants can get no benefit from these methods.—*Chicago Tribune.*

The Methodist ministers of Chicago attacked "Dowieism," Christian Science, and "divine healing" in vigorous terms at the regular meeting of the association. The Rev. Dr. T. R. Stowbridge of Elgin read an essay on Christian Science, reviewing the history of that belief, and telling of the practices of its chief disciples, who accept large fees for their alleged cures and receive money for training persons to become "spiritually pure," so they may practice the same "healing processes" for money. He told of one who met every argument offered with the assertion that all was unreal and lived only in imagination. The essay was discussed by a number of the ministers. The Rev. W. H. Burns said he regarded the matter as a grave problem. The only truth in the belief was that a happy mind makes a healthy body, and

with this truth, Dr. Burns added, men like Dowie are deluding thousands into believing many unreasonable and injurious things. The Rev. Amos Miller summarized Christian Science as "ideal philosophy run mad, combined with Christianity and the art of healing."

Recently in Illinois there has been a very novel judicial decision bearing upon the legality of curing by faith. In a case of death from typhoid fever, due to neglect of proper medical treatment and the substitution of spiritual methods, the learned attorney-general held that the laws of Illinois do not prohibit the treatment of disease by the mental and spiritual machinations employed by Christian Scientists or others when no medicines are used, and further, that when a patient dies under such treatment it is not an offence under the criminal code of the State. The ingenuity with which the law is construed to that end is one of the curiosities in jurisprudence. The following is the text of the remarkable rendering:

"I am of the opinion that the criminal code has not been violated. Section 42 of an act to amend an act entitled 'An act to prevent and punish wrongs to children,' is the only provision of the criminal code that can by any possibility be held applicable to such a case. It reads: 'It shall be unlawful for any person having the care and custody of any such child wilfully to cause or permit the life of such child to be endangered or the health of such child to be injured, or to wilfully cause or permit such child to be placed in such a situation that its life or health may be endangered.'"

"I am of the opinion that the word 'wilfully' as used excludes it from application to the case in hand. As there used it means 'intentionally, or 'designedly' and does not cover cases of mistaken judgment, where the parents or persons in charge of the child honestly believe in the efficacy of the treatment adopted.

"I am also of the opinion that under the act of 1899 concerning medicine and sur-

gery, persons may minister to or treat the sick or suffering by mental or spiritual means, without the use of any drug or material remedy, without a license from the State Board of Health. Christian Scientists claim to heal or cure the sick, or those who think themselves sick, by such means, and that is exactly what was done, or attempted to be done, in this case."

It will be interesting to discover what the Illinois State Society can do to offset this legal sanction of a monstrous fraud.—*Medical Record.*

A 6-year-old child in Douglas county, in this State, had typhoid fever. The parents, being Christian Scientists, called in some members of that church, who prayed over the child, which clung obstinately, however, to its "belief" in typhoid fever. No doctor was called in until the child was at the point of death and it was evident that "scientific" treatment was of no avail. The physician could do nothing but see the patient die. The State's Attorney of Douglas county wrote to Attorney General Akin asking whether any section of the criminal code had been violated either by these Christian Science practitioners, who had collected a fee for their ineffectual prayers, or by the parents, who had failed to give their child medical aid which might have saved its life.

The Attorney General answers in the negative. The act concerning medicine and surgery permits persons to treat the sick by "mental or spiritual" means without a license from the State Board of Health so long as no drug or material remedy is also used by them. That lets out these persons who fought typhoid fever with spiritual weapons and were worsted. As regards the parents, there is a section of the criminal code reading:

"It shall be unlawful for any person having the care and custody of any such child wilfully to cause or permit the life of such child to be endangered or the health of such child to be injured or to wilfully cause or permit such child to be

placed in such a situation that its life or health may be endangered."

This does not apply in the Douglas county case, in the opinions of the Attorney General, because of the word "willfully." The parents honestly believed in the efficacy of the treatment they adopted for the child. The consequences were disastrous, but it was a case of "mistaken judgment," not of intentional wrong doing. Every person who cherishes fantastic beliefs about the nature of disease, and is convinced that it can be charmed, or prayed, or influenced away, runs no danger if he refuses to call a doctor to see his sick child, until it is too late for that doctor to do more than make out the death certificate.

There is one man in Chicago who will rise up and call Attorney General Akin blessed. That is Dowie. He has fanatical adherents who have full faith in the healing efficacy of prayer and the laying on of hands when Dowie's immediate disciples do the work. When a patient dies, in spite of their ministrations, the faith of those adherents is not shaken. They believe "God was angry," and hence prayer was futile. Every religious impostor who claims that he can cure all diseases by "mental or spiritual means" will take great comfort from the Attorney General's opinion. But it is an unfortunate opinion for the children of the believers in those impostors. It sentences many of them to needless suffering and premature death.—*Chicago Tribune*.

Rev. J. E. Lynn, pastor of the Christian Church of Springfield, preached Sunday, Aug. 26, 1899, on "The Facts and Fallacies of Christian Science." He began by saying that his subject as first announced included three terms, Christian science, divine healing and faith cure. He said:

"Although I will confine myself to the discussion of Christian science, there is quite an essential difference in the theories of those included as followers under the terms, but the phase of their practice that

is brought to the attention of the public generally is about the same in all three, namely, the healing of disease without the use of natural remedies. Faith cures claim that it is not God's will that there should be sickness or disease and that if we have sufficient faith he will heal every one of our ailments. They believe in a personal God who answers prayer. Christian science on the other hand claims that there is no such thing as matter, therefore there can be no such thing as disease and that it exists only as a delusion in the mind and to be cured it is only necessary to rid our mind of the troublesome delusion. Doctor Cullis, now deceased, of Boston of Old Orchard fame, Doctor Simpson of New York city and Doctor Dowie of Chicago are representative faith curers.

Doctor Dowie a few years ago came to Chicago a poor man. He is now worth \$250,000, has established a bank, built a hotel and a tabernacle. He publishes a morning and evening paper. His power over his elders sent out over the country is absolutely popish. In Christian science, to which I will confine myself this evening, there is one prominent name, that of Mrs. Mary Baker Glover Eddy, whose word is infallible in their ranks. In 1866 Mrs. Eddy, then an invalid, suffered a severe accident which the doctors pronounced fatal. By sheer force of will she arose from her bed and went about her house, recovered. Nothing much was said about it by herself or others till several years later she began to publish speculations.

"In 1879 the Christian Science Church was organized. A number of churches are found over the country. There is a large training school at Boston. It does not take long to receive training. The first course consists of twelve lessons and continues through three weeks. The tuition is \$300. After a year's practice the student returns for six more lectures, for which he pays Mrs. Eddy \$200. This is followed by a week in theology for \$200. It certainly pays well for Mrs. Eddy to be a Christian scientist.

"Let us look first at the practice and then at the teaching of Mrs. Eddy and those who follow her.

"It is by the cures that they have performed, or at least have received credit for performing, that they have made most of their converts. Let us freely admit that cures have been performed; a number of them and many quite remarkable. But the whole truth is that they have many failures also, more failures by far, no doubt, than cures, many times over. Further, there are certain kinds of diseases that have practically never been cured. No one born blind has been made to see. No organs of hearing have been restored when missing. No limbs replaced. No cures of idiocy. No dead have been raised. In short, the cures are confined largely to a certain class of diseases.

"The explanation of these cures is simple and on medical and scientific ground. They are explained by the influence mind is able to exert over matter. We are not as well acquainted with this wonderful control the mind has over the body as we ought to be. It is seen in mesmerism, in super-human strength exerted by the lunatic. It may be very potent in curing diseases of the body."

Doctor Lynn then gave a great number of authentic incidents recorded in history or medical practice to show the influence of mind on body in curing diseases, giving quotations from faith curers and Christian scientists, in which they practically admit it to be the secret of all their work. Continuing, he said:

"This idea is not new; it has long been recognized in medical science and is made use of by many physicians. But it is unreasonable to believe that all diseases can be cured in this way, unreasonable to disregard the assistance of proper means. As to the teachings of Christian science, I confess that of Mrs. Eddy's book, 'Science and Health,' the only thing that impresses me is that a mind capable of producing such an unintelligible, meaningless work is cer-

tainly in need of mind cure. In it all the rules of grammar, rhetoric and logic are repeatedly violated. It abounds in self-contradictions and absurd sophisms. The teaching is fundamentally pantheistic, no matter really exists. No walls to this church, no roof over us, no pulpit, no body for your soul, no brain for your mind. These material things are dreams and delusion, non-existent effects of non-existent minds. There is nothing but the universal spirit Good or God of which our spirits are part and parcel. It is 'the one universal substance' of Spinoza the cast-off philosophy of centuries gone. Don't appeal to scripture to refute such long ago philosophy.

"It is simply necessary to appeal to the sense of right thinking found in every plain man's mind. We have outgrown these thoughts of the childhood of the race. For this book is claimed inspiration. I was shocked in attending a Christian science meeting recently to hear one woman reading from the sacred scripture and another following her read from 'Science and Health.' The book, she said, explained the Bible so men could understand it. To me it was blasphemous.

"This teaching is not reasonable. It is not reasonable to say that diet is of no importance, that it does not matter about physical exercise. It does not seem reasonable that poison kills simply because we think it is poisonous. It is not safe to accept anything that is contrary to reason. It is a gift God has given us for use. I cannot accept such teaching because it belittles the mission of Christ upon the earth. He came not to cure disease of the body but disease of the soul, a higher mission.

"This teaching is harmful for it takes away our idea of a personal God, an atoning Savior, an intelligent idea of Scripture. It is anti-biblical and anti-rational. We need not accept it because we have something better, a personal God whom we have been taught to call Father, the hope that this mortal shall put on immortality and this corruption incorruption."

PUBLIC CHARITIES OF ILLINOIS.

COMMISSIONERS.

R. D. Lawrence, Springfield, President.
 Julia C. Lathrop, Rockford.
 William J. Calhoun, Danville.
 Ephraim Banning, Chicago.
 W. P. Sloan, McLeansboro.
 John T. Peters, Springfield, Secretary.

NORTHERN HOSPITAL FOR INSANE, ELGIN.

Number of inmates, 1,042.
 Superintendent, Frank S. Whitman.
 Assistant physicians—F. H. Jenks,
 Lucius F. Foote, E. A. Foley, J. J.
 Bourne, Ella M. Timmerman.

EASTERN HOSPITAL FOR THE INSANE, KANKAKEE.

Number of inmates, 2,238.
 Superintendent, J. R. Corbus.
 Assistant physicians—A. L. Warner, C.
 H. Bradley, J. W. Walker, V. Podstadt,
 B. C. Howell, W. A. McCorn, E. T. Wells,
 A. R. Schier, E. T. Enos, A. W. Howlely,
 A. A. Lowenthal, T. R. Foster, W. O.
 Krohn.

CENTRAL HOSPITAL FOR THE INSANE, JACKSONVILLE.

Number of inmates, 1, 241.
 Superintendent, F. C. Winslow.
 Assistant physicians—H. B. Carriel, E.
 S. Crouch, A. F. Burnham, E. E. Peters.

SOUTHERN HOSPITAL FOR INSANE, ANNA.

Number of inmates, 972.
 Superintendent, W. O. Stoker.
 Assistant physicians—A. B. Beattie, M.
 D. Balzer, Samuel Dodds.

WESTERN INSANE HOSPITAL, WATERTOWN.

Number of inmates, 578.
 Superintendent, W. E. Taylor.

ASYLUM FOR FEEBLE MINDED CHILDREN,
LINCOLN.

Number of inmates, 765.
 Superintendent, W. L. Athon.
 Physician, J. R. Barnett.

ILLINOIS EYE AND EAR INFIRMARY, CHICAGO.

Number of inmates, 128.
 Superintendent, Chas. T. Garrard.

INSTITUTION FOR THE BLIND, JACKSONVILLE.

Number of inmates, 235.
 Superintendent, Frank H. Hall.
 Physicians—T. A. Wakely, M. H.
 Goodrich.

INSTITUTION FOR THE DEAF AND DUMB
JACKSONVILLE.

Number of inmates, 499.
 Superintendent, Jos. C. Gordon.
 Physicians—W. K. McLaughlin, T. J.
 Pitner, A. L. Adams.

ASYLUM FOR INCURABLE INSANE, PEORIA.

Building.
 Superintendent, Geo. A. Zeller.

ASYLUM FOR INSANE CRIMINALS, CHESTER.

Number of inmates, 175.
 Superintendent, Frank E. Auten.
 SOLDIERS' AND SAILORS' HOME, QUINCY.
 Number of inmates, 1,433.
 Superintendent, Wm. Somerville.

SOLDIERS' ORPHANS' HOME, NORMAL.

Number of inmates, 319.
 Superintendent, Richard N. McCauley.

SOLDIERS' WIDOWS' HOME, WILMINGTON.

Number of inmates, 41.
 Superintendent, Mrs. Margaret R.
 Wickens.

HOME FOR JUVENILE FEMALE OFFENDERS,
GENEVA.

Number of inmates, 128.
 Superintendent, Mrs. Ophelia L.
 Amigh.

Total number in above mentioned hos-
 pitals and homes, 9,063.

Cost to State per quarter, \$343,731.07.

Net average cost per capita for quarter,
 \$35.88.

The pastor of St. James Methodist Epis-
 copal Church, the Rev. Dr. Robert McIn-
 tyre, has announced that a hospital for in-
 curable consumptives will be erected by
 a citizen of Chicago at an early date. The
 name of the donor has not been made
 public.

ILLINOIS Medical Journal

The Official Organ
of the
State Medical Society



A Monthly Bulletin
Edited by the
Publication Committee

Printed by
THE ILLINOIS STATE JOURNAL COMPANY.

Entered in the Springfield Postoffice as Second-Class Matter.

Volume XLIX.
New Series, Vol. I. }
Number 5.

Springfield, Ill., November, 1899.

{ Subscription, \$3 a Year.
Single Copies, 25 Cents.

TABLE OF CONTENTS.

ORIGINAL ARTICLES.

Post Hoc Propter Hoc—W. T. Chenwoth, M. D., Decatur,.....	195
Observations on the Operation of Symphysiotomy—H. McKennan, M. D., Paris, 199	
Maternal Impressions—Henry F. Lewis, M. D., Chicago,.....	202
Caput Obstipum Musculare—M. L. Harris, M. D., Chicago,.....	207
Imbrication Operations for Radical Cure of Hernia—E. Wyllys Andrews, M. D., Chicago,.....	211
Operative Treatment in High Degrees of Myopia—Allen T. Haight, M. D., Chicago, 212	
Case of Severe Tetanus Successfully Treated by Bacelli's Method—B. B. Griffith, M. D., Springfield,.....	218

EDITORIALS.

Medical Practice Act.....	222
Bland's Society.....	222
Medical Journalism.....	223
Woodbury vs. Eddy.....	223
The Preparation of Papers.....	224

CORRESPONDENCE.

The Relations of the Society to Its Legislative Committee and the Board of Health (Concluded).....	225
Science and Politics.....	227

OFFICIAL TRANSACTIONS.

Proceedings of Cairo Meeting—Last Day, 216	
Meeting of Executive Committee.....	229
Meeting of Committee of Arrangements...	230

County and District Societies.....	231
------------------------------------	-----

State Board of Health Items.....	233
State Items.....	235
Deaths, Marriages, Changes of Address...	238
Medical Roster, Ill. N. G.....	221
Another Victim of Dowie's Teachings....	220

LIST OF OFFICERS AND PLACES OF MEETING SINCE THE ORGANIZATION OF THE SOCIETY.

YEAR.	PRESIDENT.	VICE-PRESIDENT.	SECRETARY.	TREASURER.	PLACE OF MEETING.
1850*	Rudolphus Rouse....		Edwin G. Meek....		Springfield.
1850	William B. Herrick....	Rudolphus Rouse....	Edwin G. Meek....	John A. Halderman....	Springfield.
1851	Samuel Thompson....	E. McArthur....	H. Schoemaker....	E. Rouse....	Peoria.
1852	Rudolphus Rouse....	Thomas Hall....	E. S. Cooper....	Edward Dickenson....	Jacksonville.
1853	Daniel Brainard....	C. N. Andrews....	H. A. Johnson....	A. B. Chambers....	Chicago.
1854	C. N. Andrews....	Samuel Thompson....	H. A. Johnson....	N. S. Davis....	La Salle.
1855	N. S. Davis....	E. R. Roe....	E. Andrews....	J. V. Z. Blaney....	Bloomington.
1856	H. Noble....	T. D. Washburn....	N. S. Davis....	J. V. Z. Blaney....	Vandalia.
1857	C. Goodbreak....	A. D. McArthur....	H. A. Johnson....	J. V. Z. Blaney....	Chicago.
1858	H. A. Johnson....	William Lyman....	N. S. Davis....	J. W. Freer....	Rockford.
1859	David Prince....	H. W. Davis....	N. S. Davis....	J. W. Freer....	Decatur.
1860	Wm. M. Chambers....	T. K. Edmiston....	N. S. Davis....	J. W. Freer....	Paris.
1863	A. McFarland....	A. H. Luce....	N. S. Davis....	J. H. Hollister....	Jacksonville.
1864	A. H. Luce....	J. M. Steele....	N. S. Davis....	J. H. Hollister....	Chicago.
1865	J. M. Steele....	F. B. Haller....	N. S. Davis....	J. H. Hollister....	Bloomington.
1866	F. B. Haller....	L. T. Hewens....	N. S. Davis....	J. H. Hollister....	Decatur.
1867	S. W. Noble....	D. W. Young....	N. S. Davis....	J. H. Hollister....	Springfield.
1868	S. T. Trowbridge....	J. O. Hamilton....	N. S. Davis....	J. H. Hollister....	Quincy.
1869	S. T. Trowbridge....	J. O. Hamilton....	N. S. Davis....	J. H. Hollister....	Chicago.
1870	J. V. Z. Blaney....	G. W. Albin....	T. D. Fitch....	J. H. Hollister....	Dixon.
1871	G. W. Albin....	John Murphy....	T. D. Fitch....	J. H. Hollister....	Peoria.
1872	J. O. Hamilton....	T. Worrell....	T. D. Fitch....	J. H. Hollister....	Rock Island.
1873	D. W. Young....	T. D. Washburn....	T. D. Fitch....	J. H. Hollister....	Bloomington.
1874	T. F. Worrell....	E. L. Holmes....	T. D. Fitch....	J. H. Hollister....	Chicago.
1875	J. H. Hollister....	Wm. P. Pierce....	T. D. Fitch....	Wm. E. Quine....	Jacksonville.
1876	T. D. Washburn....	J. L. White....	T. D. Fitch....	J. H. Hollister....	Urbana.
1877	T. D. Fitch....	S. H. Birney....	N. S. Davis....	J. H. Hollister....	Chicago.
1878	J. L. White....	E. P. Cook....	N. S. Davis....	J. H. Hollister....	Springfield.
1879	E. P. Cook....	J. S. Whitmire....	N. S. Davis....	J. H. Hollister....	Lincoln.
1880	Ephriam Ingals....	G. W. Jones....	N. S. Davis....	J. H. Hollister....	Belleville.
1881	G. W. Jones....	William Hill....	S. J. Jones....	J. H. Hollister....	Chicago.
1882	Robert Boal....	A. T. Darrah....	S. J. Jones....	J. H. Hollister....	Quincy.
1883	A. T. Darrah....	L. G. Thompson....	S. J. Jones....	J. H. Hollister....	Peoria.
1884	E. Andrews....	D. S. Booth....	S. J. Jones....	Walter Hay....	Chicago.
1885	D. S. Booth....	S. C. Plummer....	S. J. Jones....	Walter Hay....	Springfield.
1886	William A. Byrd....	W. T. Kirk....	S. J. Jones....	Walter Hay....	Bloomington.
1887	William T. Kirk....	Elias Wengen....	D. W. Graham....	Walter Hay....	Chicago.
1888	William O. Ensign....	C. W. Earle....	D. W. Graham....	Walter Hay....	Rock Island.
1889	C. W. Earle....	P. H. Oyler....	D. W. Graham....	T. W. McIlvane....	Jacksonville.
1890	John Wright....	L. P. Mathews....	D. W. Graham....	T. W. McIlvane....	Chicago.
1891	John P. Mathews....	Charles C. Hunt....	D. W. Graham....	George N. Kreider....	Springfield.
1892	Charles C. Hunt....	E. F. Ingals....	D. W. Graham....	George N. Kreider....	Vandalia.
1893	E. Fletcher Ingals....	Otho B. Will....	D. W. Graham....	George N. Kreider....	Chicago.
1894	Otho B. Will....	D. R. Brower....	J. B. Hamilton....	George N. Kreider....	Decatur.
1895	Daniel R. Brower....	A. C. Corr....	J. B. Hamilton....	George N. Kreider....	Springfield.
1896	D. W. Graham....	J. M. G. Carter....	J. B. Hamilton....	George N. Kreider....	Ottawa.
1897	A. C. Corr....	J. M. G. Carter....	J. B. Hamilton....	George N. Kreider....	East St. Louis.
1898	J. M. G. Carter....	T. J. Pitner....	E. W. Weis....	George N. Kreider....	Galesburg.
1899	T. J. Pitner....	H. N. Moyer....	E. W. Weis....	George N. Kreider....	Cairo.

*Preliminary Convention.

EXPLANATION.—No meeting was held in the years 1861 or 1862, "on account of the large number of members engaged as surgeons in the volunteer army of the United States."

Until the meeting of 1869, it was the custom to elect officers the first day, and for the President to have charge of the meeting at which he was elected. Hence Dr. Trowbridge seems to have presided over two meetings, although elected President but once.

The Illinois Medical Journal.

The Official Organ of The Illinois State Medical Society.

VOL. XLIX.
New Series, Vol. I. }
No. 5.

Springfield, Ill., November, 1899.

A SUBSCRIPTION
} \$3.00 A YEAR.

POST HOC PROPTER HOC.

BY W. J. CHENOWETH, M. D., DECATUR.

The title to this paper was suggested by reading reports of cures of diphtheria by the serum treatment, many of which, in my opinion, should have been credited to other causes, and some to having prevented the disease. To ascribe recoveries from disease to legitimate causes has been the *pons asinorum* of the medical profession since medicines were first prescribed. There has always been a belief that there were drugs which would cure disease if they could be found, and hence every new remedy has had the endorsement of the hopeful. And the belief that the termination of a disease was due to the treatment has been crystalized into the adage *post hoc propter hoc* and finds support in the reported cures by physicians and in the advertisements of pharmacists. But the history of medicine through all of the ages, affords abundant evidence that many supposed cures by medicines were merely demonstrations of nature's ability to resist disease, formerly known as *vis medicatrix naturae*, now designated *immunity*. Fifty years ago there were no specifics recognized by regular physicians, unless an exception is made in favor of quinine, which was then given as a cure for ague, as it is now, but from a different standpoint, then supposed to act as an antiperiodic, now to destroy a parasite. Dating from Pasteur's experiments on ferments, and injections of attenuated virus in the carbuncular diseases of domestic animals, a complete revolution has been effected in the practice of medicine and of surgery. Since that time but few diseases occur which are not treated with specifics. Amongst the most popular is the serum treatment of diphtheria being best known.

and trusted, by a greater number. Under the name of antitoxin it is used as a preventive, and possesses recognized curative properties, if introduced as soon after the poison of the disease is made manifest by such symptoms as can be clinically recognized. But as its capacity is limited to neutralizing the toxin it does not destroy the bacillus. Before antitoxin was known many epidemics of diphtheria were so mild that fifty per cent of the physicians practicing in the locality where it prevailed, would pass through an epidemic without occasion to make a death report. Such experiences are to be found now, but it was then as it is now, recoveries were credited to treatment. Jacobi said in 1880, "in many a season the mortality is small. Many a year it was not higher than five per cent of all of the cases." Of diphtheria affecting the larynx he said, "whether it be of primary origin or extends from the fauces, it is nearly always fatal. In severe epidemics the mortality is 95 per cent. This may be explained by Dr. Borgiottos remark in reference to the mortality of the Florentine epidemics of 1872 and 1873, "owing to incompleteness of the returns, the figures should be looked upon rather as the relation of the *gravely affected* to the *dead*." Dr. J. H. Etheridge wrote in 1883, "Alcohol has been given in every case in late years and I have not lost a case." Dr. Caswell T. Poe, of Grand Island, Neb., in the same year wrote, "The number of cases treated by me between June, 1876, and Oct. 1882, was 500, of these 24 died, the cause being paralysis and laryngeal trouble." Dr. Barnard, of Charleston, Ill., had treated hundreds of cases with the loss of three only in ten years. There are scores of similar reports scattered through the medical journals which were published before antitoxin was discovered. About the year 1860 Deca-

tur, Ill., was visited by an epidemic of diphtheria, during which a number of children died from laryngeal trouble. Drs. Beaman and Trowbridge, partners, practicing in the city at the time, were reported to have treated a great many cases without the loss of one. At a chance meeting of physicians, at which these doctors were present (which happened shortly after the epidemic had passed) they stated that during the epidemic they had treated 600 cases of diphtheria with a loss of not to exceed two per cent, laryngeal cases included. This statement was fully credited, and while the treatment adopted by the doctors was very similar to that of the other physicians, the number and kind of cases included in their estimate was entirely different. They having included all of the cases of sore throat prescribed for, because they regarded them as mild cases of diphtheria. Jacobi's estimate of cases recovering in mild epidemics was not excessive, their recovery not having resulted from treatment, since the remedies given were as numerous as the physicians in charge of the cases. And the reason given by Dr. Borgiotto for the mortality was certainly just, as in the epidemic at Decatur none of the physicians, except Drs. Beaman and Trowbridge, considered it necessary to tabulate any case of the disease not recognized as diphtheria, while serious cases were looked upon with alarm. The increased percentage of recoveries in epidemics of diphtheria is owing to intubation and to a more scientific application of antiseptic treatment. Neither the stenosis of laryngitis, nor the septic poison can be cured by an agent proven to have but a single attribute, and that one entirely free from antagonism to either of these. An illustration of the relation existing between the diphtheria bacillus, the diphtheria toxin, and the patient is afforded by comparison with the effect produced by imbibing water contaminated with the excreta and offal of parties occupying the bank of the stream from which the supply is derived. Removal of the party will prevent further poisoning of the stream. Put-

ting an antitoxin in the stream may neutralize the toxin, and administering to the person imbibing the water, an antidote may prevent injury to organs not yet poisoned. The person whose organs are organically incapable of duty must be relieved by some other means, if relieved at all. I wish distinctly to state that my objections are not to the remedy, but to reports of cures which will not enable a student to determine whether made to bolster a remedy, to destroy a germ, or to cure a sepsis. Publishing a large number of cases of diphtheria, the greater part of which have no other claims to recognition than the presence of bacilli found in the throats of persons, not otherwise known to have the disease, is misleading. Or the theory causing the injection of antitoxin is wrong, the toxin causing the disease is not the bacilli, but it is the poison generated by them while engaged in maintaining life around a spot of denuded or weakened membrane, which permits the poison to enter the circulation. And the object of injecting the serum is to neutralize this poison. If the antitoxin is injected before visible signs of the toxic effect can be discovered, by what right are such cases tabulated diphtheria? The disease may have been prevented, but I know of no rule of logic establishing prevention as a proof of cure. The recognition of diphtheria, by bacilli found in the throat, before clinical symptoms raise a suspicion of the disease, are as if a thief should be convicted of burglarizing a house which had not been robbed, because he was found hanging around the premises. However bad his reputation, he should not be convicted without, at least proof, that there had been a robbery. There is sometimes so little difference between pharyngitis or laryngitis, or tonsillitis, in the appearance of the parts affected by diphtheria, that a differential diagnosis cannot be made. If antitoxin should be injected because a few diphtheria bacilli are found in the mucous of the throat, and recovery should take place within twenty-four hours, by what right should such a case be tabulated as

diphtheria? If no bacilli should be found, under identical circumstances, would it then be proper to class it as diphtheria? Bokay says: "In my opinion, hesitation in employment of serum is only justifiable in clinically doubtful cases." Employed under such circumstances, it is not indicative of a desire to bolster a remedy rather than to weigh it in the balance of justice? It is not an exaggeration to say that by fair influence, diphtheria antitoxin has been credited with antiseptic, antiphlogistic, antitoxic, and germicide properties, and that recovery after using it has been the sole proof of the claim. Allowing four days as a limit to satisfy the most credulous that antitoxin can neither cure, nor relieve the stenosis caused by diphtheritic croup, it can scarcely be credited that if tracheotomy or intubation is permitted, at that time it must be preceded or accompanied with injection of the serum (which is a specific for diphtheria—a mere name). That I do not exaggerate in this matter. I copy the following from the Medical Record of a recent date: "Daldy (British Medical Journal, Feb. 11th, 1899), the case of a seven months old child with the history of croup of seven days duration. The respiration was 76, pulse 154, temperature 99.2. Croupy cough was present, together with great sucking in of the ribs and of the angles of the neck. The fauces were normal, except a slight congestion of the ridges of the tonsils. Emetics and hot applications not bringing relief, and the dyspnoea increasing, tracheotomy was performed and fifteen hundred units of antitoxin were injected. The dyspnoea was relieved and on the following day a second injection of fifteen hundred units of antitoxin was made. Improvement was uninterrupted, and the child progressed to a final recovery. The tracheotomy tube being removed on the seventh day. Some doubt of the nature of the case was first felt, but examination of the tracheal mucous disclosed the presence of diphtheritic bacilli. It was pointed out that in pre-antitoxin days diphtheritic croup was almost invariably fatal." In this case there

was not the first indication for the use of the antitoxin, seven days having elapsed since the croup was recognized. That stenosis was the cause of the symptoms does not admit of a doubt, nor could any other person but a blind advocate of antitoxin suppose that an injection of the serum was demanded. The absurdity is more apparent when it is recollected that although the relief was prompt and continuous, a second injection of antitoxin was made after twenty-four hours. The presence of the bacillus in the mucous of the throat for days, and even for weeks after the poisoned condition of the throat disappeared demonstrates that it is not a dangerous guest even if disagreeable. Since intubation in this country has well-nigh superseded tracheotomy, there is not the same excuse for delaying relief to stenosis, and the success which has attended the operation in the hands of experienced and skillful operators is a token of encouragement for the future. Already seventeen out of nineteen intubations have been successfully performed, and give promise that skill, antitoxin and experience will do for intubation what has been accomplished for ovariectomy, and that the time is not far off when recoveries cannot be counted by a per cent, the hundred mark having been passed. But the time has not yet come when doctors can invariably determine an antecedent from a causal relation. Being too frequently satisfied with the kind of proof which convinced Madam Blaise that her amatory conquests were very great amongst royalty.

"The king himself had followed her
When she had walked before."

SUMMARY.

Cures of diseases have at all times more frequently been credited to antecedents than to causes. Epidemics of diphtheria, occurring before antitoxin was known, produced no greater mortality in *mild cases* than they do at this time. Severe cases caused by sepsis, are not controlled by it, and stenosis from laryngeal deposit, cannot be relieved except by mechanical means. Antitoxin has but a single specific

effect, that of neutralizing the toxin, and claim to this must be established by the fact that the clinical symptoms indicated that the toxin affected the system. The presence of diphtheria bacilli can only be corroborative, and not pathognomonic.

Diphtheritic croup may be prevented by administration of antitoxin but cannot be cured by it.

DISCUSSION.

DR. E. P. COOK, Mendota: I have listened to this paper with a great deal of interest, and I feel greatly refreshed since hearing it, notwithstanding the weather is very oppressive. The thought occurs to me, what of the future of such associations as this, when such men as the gentleman who has read the paper disappear, and when advanced medicine is entrusted to the younger men? But I must say, I believe we, as a profession, are doing better work than we have ever done before. It is somewhat refreshing to have heard this paper, which in many respects does not agree with the views entertained by some of us, and I hope no member will feel embarrassed if he desires to make some remarks upon it. As one of the gray beards of the Society, I wish to dissent from the inference drawn from the paper. I think Dr. Chenoweth has been careful in his preparation of the paper, and yet it is not an easy matter to determine how he stands. It is largely a question of observation and of the accuracy with which he watches his cases, the care with which he studies them, and his qualifications as a clinician. He has reported cases which have come under his care, and it does seem to me, if I know anything definitely, that I have seen good results from the use of antitoxin in the treatment of diphtheria. I do not think I have been deceived in regard to its use in such cases. I certainly feel that if placed in a position of responsibility and confronted with a series of cases of diphtheria, I should accept that responsibility with a different feeling than I formerly did. The mortality of diphtheria has been very materially reduced by antitoxin, and I rejoice to-day that we have made this great advance in serum-therapy in the treatment of this disease.

DR. JOHN H. HOLLISTER, Chicago: In all ages of the past physicians have been apt to judge results as dependent upon certain forms of medication, and from that fact different doctrines with reference to treatment have arisen, flourished, disappeared, to reappear again, and it has occurred to me a good many times within the last two or three years that our youngest men in the profession were the most positive with reference to the discoveries of the actual causes of disease, and perhaps very much which we assume to be real and positive to-day will have to pass in review, and perhaps undergo material modification. While

on every hand we should welcome every discovery, and encourage the spirit of investigation, results should be verified before given to the world. I think a great mistake was made in Berlin; I do not think Koch really wished to place before the world the results of his investigations with reference to tuberculosis as early as he did, and the fault did not lie with him so much as it did with the masses. It behooves our younger men in the profession not to jump to conclusions too quickly, but to be extremely careful in drawing deductions, rather than be doomed to disappointments. I am one of those who feel that while we are making progress, and making it rapidly, much of our literature upon the subjects of to-day will be materially modified from being so positive, as we are with reference to certain points, ten years hence, and I sometimes feel that we are going more rapidly in asserting the causes of specific disease than we are warranted.

DR. J. HOMER COULTER, Chicago: I do not wish to precipitate a discussion at this time on the treatment of diphtheria with antitoxin, but I feel that a comparison of the results from the investigations of Koch along the line of tuberculosis is not strictly permissible with those obtained from antitoxin in treating diphtheria. The treatment of diphtheria by antitoxin has given us a positive reduction of the mortality of from forty-five to sixty-five per cent down to 2.8 per cent. These are statistics which cannot be questioned, having been gathered with the most scrupulous scientific care.

I would like to ask Dr. Chenoweth how much of a conclusive report would he ask before he would permit us to draw conclusions, and if those statistics do not afford us conclusive proof of the value of antitoxin, then I would like to know where we can begin to draw deductions from the paper.

DR. CHENOWETH (closing the discussion): I may have been mistaken in what has been said, but I am not mistaken in what I read. The position I have taken in this matter is plain, namely, that while I believe antitoxin to be a valuable remedy in the treatment of diphtheria, it must be given at a certain time. If we give this agent before the clinical symptoms declare that diphtheria is present, how do we know that it is diphtheria, and how do we know that we cured the disease? We do not know it by the Klebs-Loeffler bacillus in the throat, because it will come before diphtheria, it will come during diphtheria, and it will come after it, and the point with reference to antitoxin is so plain that it cannot be mistaken. Antitoxin is not given to get rid of the bacillus; it is not given to cure the sepsis, but it is given for one limited purpose—to cure the particular toxin, and this toxin is generated by diphtheria. As soon as we are satisfied that the child or person has diphtheria, the antitoxin should be administered at once. It is useless to wait until the disease is well developed before administering it.

OBSERVATIONS ON THE OPERATION OF SYMPHYSIOTOMY.

BY H. MCKENNAN, M. D., PARIS.

The history of the first century of symphysiotomy is one of discouragements. Since the earliest Sigault operation, it has never commanded the universal support of the profession. Because of the fact that the majority of the very early operations proved disastrous, we have been inclined to regard entirely the results, instead of the causes of those results. Thus we have been led to entertain an unscientific prejudice against the operation.

But when we remember that a hundred years ago the precautions against sepsis were unknown, and the technique was as crude and as faulty in this as in all other operations at that time, it is not so surprising that the mortality in symphysiotomy was high.

Abandoned at one time in disrepute, symphysiotomy, which was revived by Morissani, is now prominently before the profession of America. Five or six years ago text-books passed the subject by with a short paragraph or two, mostly for its historical interest. Now, no obstetrical text-book is complete without a chapter devoted exclusively to the operation.

The present maternal mortality in America does not do justice to the operation. Those cases, many of which were operated upon in hopeless conditions, should not be counted against symphysiotomy. For instance, in the first 51 American operations there were eight deaths. Dr. Harris' report shows us that one woman was far advanced in Bright's disease when the operation was made. Another was beyond hope at the time of the operation, owing to unskillful treatment, and another was believed to have been infected with sepsis through uncleanly obstetrical management, prior to the operation. Another caught cold on her way to the maternity hospital and died of double pneumonia. Another was three days in

labor before going to the hospital and died of sepsis. Another, vagina badly torn and edematous from attempts to deliver before going to hospital and at time of operation, had a pulse of 140 and temperature of 102. Another was in labor sixty hours. Vigorous attempts to deliver with forceps prior to the operation had fractured the frontal and occipital bones of the fetus and produced injuries to the vagina which were followed by gangrene. Under the same conditions, the prospect for these women under any plan of treatment or any operation would not have been bright.

As to the technique and method of dividing the symphysis, each operator must select the method which, in his judgment, will best meet the requirements of his individual case. Whether he uses the old Italian method, with its sickle-shaped knife of Galbiati, or whether he follows the technique recommended by Ayers, Lusk or Harris, it matters not.

If the patient is a suitable one for the operation, and has not been tortured to exhaustion and infected by unskillful obstetrical manipulation, and, above all, if the operator is cleanly and expeditious about his work, the woman will recover.

Bear in mind that women do not die from the surgery, but from the obstetrics and from sepsis. I believe that when the cases are carefully selected and where the operation is done early—in fact, just as soon as the os is sufficiently dilated to allow the head to pass, and before there has been any instrumental interference—the maternal mortality will be reduced to zero and the fetal loss will correspond with normal deliveries.

The trouble with us in the past has been that we were so keen to perform symphysiotomy that we operated on many cases that were at the time hopelessly unfit for the operation.

It is not my purpose to elevate symphysiotomy to a higher place than any of the other competing operations. Cæsarean section will always command the support of experienced surgeons, and will continue

to offer to women with small or deformed pelves a fair chance for the recovery of themselves and a bright prospect for the lives of their children.

The induction of premature labor may be practiced in certain cases, and offers a good chance for the mother's recovery. The fetal loss is, however, greater than in either of the former operations.

Craniotomy upon the living child is a relic of an ignorant age, and is a barbarous

strait, with no obstructive growths, and the true conjugate measures over 2 $\frac{1}{2}$ inches, if the child is alive and apparently of average size, I would say clean off the pubes and external genitals and divide the symphysis, according to the method that seems, in your judgment, best suited to that individual case, and deliver the child. You do not require a hospital and a corps of trained nurses; you do not require great skill as a surgeon. But with the ordinary ability of a country doctor you can safely perform symphysiotomy in any of the homes of your country constituents. It is well to bear in mind that the exact pelvic measurements are not so important as the relative size and conformability of the child's head to the bony outlet.

Symphysiotomy is less formidable and in suitable cases, I believe, is safer to the mother and child than any of the operations with which it comes into competition.

Nothing contributes more to the success of symphysiotomy than proper after-treatment. Of this the most important factors are absolute cleanliness and immobility. Personal daily inspection and cleansing of the patient by the attending physician, if necessary, will secure the former; and at the same time ascertain the condition of the appliance used to secure the immobility of the divided joint.

There is some diversity of opinion in regard to the proper method of maintaining the joint apposition. Gutter, or trough-shaped, beds have been invented; iliac compressors and peculiar girdles have been devised; apparatus which suspend the woman from the ceiling by rope and pulley have been recommended; and sand bags, laid alongside the woman's hips, have been used. Others have been content to wind the hips with roller bandages, or support them with adhesive strips. All are, no doubt, valuable and any one or more of these methods may be adopted.

I desire to call your attention to the methods used in two cases of symphysiotomy in my own practice. The first case



CASE I.

practice. In this day of instruments and of literature, of opportunity for acquiring knowledge, with the field literally swarming with medical men and women who are always glad to assist, the conditions must be remarkable indeed to justify the killing of an unborn babe. Don't do it.

Celiotomy should be made in those obstructive cases where symphysiotomy would be contraindicated. But where you have a healthy parturient woman with a pelvis so small or flattened that an average sized head will not engage in the superior

was operated on Dec. 16, 1892, and was reported before the society at the Chicago meeting the following May.

The woman was $4\frac{1}{2}$ feet high and weighed about 100 pounds. Pelvis flattened, with a conjugate vera of $2\frac{3}{4}$ inches. She had been delivered twice before by means of craniotomy, the second time nearly losing her life. The third labor began on the evening of December 15. The next morning I was called and found the

ordinary muslin roller, which was reinforced by more roller bandages every day or two during her convalescence. The woman was kept in an ordinary bed and nursed by the neighbor women. Her home was a very poor, unfinished two-room cottage, with furnishings too meager to be comfortable. In three weeks' time the patient was well, with a perfect bony union of the symphysis. The child lived and is now a bright little school-girl.

The second case, which was reported in full in the January number, 1899, of "Obstetrics," occurred within a rifle shot of the first. A dwarf, aged 30; height, 45 inches; weight, 50 pounds; true pelvic conjugate, $2\frac{3}{4}$ inches. Her husband is 5 feet 10 inches tall and weighs 140 pounds.

This little woman was confined Nov. 4, 1898. Her labor was allowed to proceed uninterruptedly until the os was fully dilated. The head would not engage in the superior strait, and forceps were cautiously applied, but proved of no avail. The mons veneris was then shaved, the parts thoroughly disinfected and I proceeded to perform symphysiotomy, after the method described above, except that a small probe-pointed bistoury was used to divide the symphysis. During the passage of the head the pubic bones separated two inches.

The child weighed $4\frac{1}{2}$ pounds and had a biparietal measurement of 3 inches.

The wound was stitched with silk, covered with sublimate gauze and cotton, the hips were wound with several turns of adhesive plaster and the patient placed in an ordinary bed. At the end of the fourth week she was permitted to get up and gradually resume her household duties. She suffered no pain after the first day or two, and her recovery is complete. The child lived and is as large now as the average baby of the same age.

This case is remarkable because of the small size of the woman, as compared with that of her husband, and because the fetal head was as large as the average child's head at full term. This operation, also, was made in a small cottage and the pa-



CASE II.

os thoroughly dilated and the left arm protruding. Version was easily accomplished, but the head could not be made to engage. After eight hours of labor and before any instrumental interference, I divided the symphysis with a small metacarpal saw, the index finger beneath the symphysis as a guide, cutting from above downward, and delivered the child with forceps. Hemorrhage was controlled by hot water and pressure, the wound was stitched, covered with a little boric acid and sealed with silk plaster. The hips were wound with an

tient was nursed by a neighbor woman of very ordinary ability.

I wish to emphasize the following points:

1. Symphysiotomy is not so formidable but that it may be performed by any physician of ordinary ability.

2. Your patient must be free from sepsis and free from exhaustion.

3. The technique is immaterial so long as it is clean and expeditious.

4. The after-treatment demands absolute immobility of the divided symphysis and daily inspection and cleansing of the patient by the attending physician.

5. Expensive beds and apparatus are sometimes convenient, but are not necessary for the success of the operation.

6. Your patient may be operated upon in her own home, among her own surroundings, and by her own physician.

DISCUSSION.

DR. JOHN H. HOLLISTER, Chicago: I was very much interested in the report of these cases, and more particularly interested in reference to the exceeding fertility of the Doctor's mind as regards his resources in cases of emergency. I recall the case of a physician who became satisfied that a patient could not be delivered by forceps, but it seemed to him desirable that an operation should be performed; but in the absence of his instruments, and far away from home, he simply used a pocket-knife and succeeded in successfully delivering the child. The improvisation was made to secure immobility. He applied a bandage, putting it twice around the patient and buckled it firmly, leaving her in that condition, and recovery was without incident. I doubt whether this case has ever been published, but it illustrates the manner in which in emergencies a successful delivery can be accomplished under circumstances that might seem a failure. It illustrates the simplicity of the operation and security of the patient, when properly placed, and the chances are largely in favor of recovery.

MATERNAL IMPRESSIONS.

BY HENRY F. LEWIS, M. D., CHICAGO.

There are numerous superstitious ideas concerning the causation of monstrosities. Some were held in the ancient and middle ages, some are held by the more or less intelligent laity to-day, and some are held

by medical men, even now. The last class no longer believes that monsters are sent to parents as punishment for sin; that they are the result of the artifice or wiles of the Devil, or that they are the products of bestiality, but the idea is widely prevalent among physicians, especially of this country, that nervous or mental impression occurring to the pregnant woman may in some unexplained manner influence the growth and appearance of the embryo. Scarcely a monster is reported in the periodical literature without a considerable portion of the article being devoted to speculation upon the probable maternal impression. The record of clinical and pathological facts and the report of the dissection may be woefully deficient or entirely wanting, but the metaphysical question will usually be abundantly discussed. In the rare cases where no such impression can be discovered its absence is considered worthy of note. It doubtless occurs to many that I am setting up a man of straw, but the wide prevalence of belief even among men of our profession in the influence of maternal impressions is my excuse for this polemic.

It may not perhaps surprise us to find that poetry and fiction use this theme. Goethe, Scott and Oliver Wendell Holmes employ it in their plots, but even Fordyce Barker and Parvin urge its importance. It is perhaps worth our while to make a critical examination of this theory. "There are more things in heaven and earth than are dreamt of in your philosophy." There is always a point in the investigation of any phenomenon where one must pause and confess his ignorance. The ancients based the world upon an elephant and the elephant upon a tortoise, but set nothing under the feet of the tortoise. As poets and as philosophers we may theorize about the unknown, but as scientists we must base our theories upon facts and must ignore that which has no basis of proof. The causes of natural phenomena are always found to be not mysterious and not supernatural, but always reasonable, scientific and logical, following a law

to which all similar facts and occurrences conform. Even though the ultimate causes of a fact be unknown it is never justifiable to drag in the *deus ex machina*.

About the wonderful influences of heredity upon offspring we have nothing to do in this discussion. We may even be prepared to admit a considerable influence of mind and brain upon matter and body. Mind, however, always acts through the medium of nerves, structures material enough. Even before conception there is no reason to believe that mental impressions of mother or father could influence ovum or spermatozoon so that the resulting embryo would be deformed in a certain way, at all corresponding to the mental impression. The spermatozoon with which to-day a man impregnates an ovum may have lain in his vesiculæ seminales for weeks before, as much outside the influence of his brain as in the urine in his bladder. Whatever mental impressions he may have had during those weeks could at most have influenced only those spermatozoa which were in process of formation in the testes. There is no evidence, indeed, that even these were influenced. An impression strong enough to cause an ovum to grow into a monster ought to be strong enough to exert a similar influence upon all the ova within the ovaries. Therefore, all the subsequent children of that mother ought to exhibit similar monstrosities.

Let us consider the strongest case ever cited in proof of the possibility of the etiological influence of mental impressions upon the fetus. A female monster was born in Frederick County, Md., in 1864, at the seventh month of gestation. It was a double monster of the species *diprosopus tetrophthalmus*; that is, it had a double face with two noses, two mouths and four eyes. The ladies present, as well as the doctor officiating, accounted for the case in the following manner: Ten months before the birth, that is three months before conception, the mother lost a child by scarlatina. At the same time the mother's infant sister, about the same age as her

own child, died of the same disease. Both were buried in the same coffin and so placed that at the funeral only the two little faces were visible lying close together on the pillow. Here was a case of profound mental impression made not on a pregnant woman, but three months before the conception of a monster which exhibited in some respects a similar appearance to the subject which so strongly impressed her. Of course here the "impressed" ovum, if impressed at all, was influenced while still in the mother's ovary and while still a part of her body. If we will believe the homeopaths, faith curists and christian scientists, we may believe that cells within the body may be influenced by mental action and by other equally imponderable factors. How can this case be considered other than a coincidence when we remember that this form of monster, although rare, yet has many times occurred in man, other mammals and even birds without any history of maternal impression whatever.

An early example of the belief in maternal impressions is furnished in the Bible in the story of how Jacob worked a sharp game upon his father-in-law, Laban. Jacob was promised all the ring-straked animals which should be born in the flocks under his care during a given time. Ring-straked animals were rare and it was not expected that Jacob would make a very profitable thing out of his contract. However, the astute son-in-law peeled the bark from twigs in the form of rings and set these twigs up near the places where the animals went to drink so that they might "conceive before the rods." He took pains to set the rods only where the best and strongest sheep and cattle were, having an eye upon quality as well as quantity. The result was that most of the females, and those the best ones, bore ring-straked young, much to the profit of Jacob.

The pigmented spots, moles and nevi which are so common are popularly supposed to be the result of maternal marking. A woman saw a mole run under her bed and when her child was born it had a hairy mole of considerable extent on the

forehead, covered with fine brownish fur just like that of the mole which ran under the bed. As a rule the supposed marking is observed on the child and then everybody thinks hard to discover something in the history of the pregnancy to which the marking may be ascribed.

It is the usual rule for writers reporting cases of monstrosity to make some reference to the probable maternal impression which caused the deformity reported. Great ingenuity is often displayed in ferreting out, in the history of the pregnancy, some fright or mental shock which is indicated as the cause of the phenomenon. Since anencephali are by far the most common of monsters and since, from the lack of a cranium, their foreheads recede abruptly from above the eyes, thus giving the appearance of the head of some animal like a dog, cat or frog, it is usual to find in the history of the case that the mother was frightened or shocked by seeing some such animal under some frightful circumstances.

Dr. Stahl, at a recent meeting of this society, read a paper on this subject in which he used as an illustration of the possible occurrence of deformities resulting from maternal impressions, a case of anencephalus which had occurred in his practice. The mother, in the third month of her pregnancy, saw a child run over in the street. The top and back of its head were crushed and mangled into a bloody pulp. The sight naturally caused a profound nervous impression on the mother and the image of the mangled child was doubtless imprinted sharply on her memory for a long time. When her own child was born it proved to be an anencephalus. The bones of the cranial vault were lacking and the base was covered only by a red mass of rudimentary cerebral tissue and membrane. He accounts for the malformation by supposing that the mental shock caused a sudden spasm of the muscles, including those of the uterus, so that the embryo was for a moment slightly injured or the blood supply was temporarily impaired. Certain of the cells at the

cephalic end of the embryo was thereby killed, thus causing the ultimate defect in the cranial vault seen at birth. How a muscular spasm of the uterus insufficient to cause abortion could exert any deleterious influence on the minute embryo snugly tucked away in the center mid the fluids of the ovum is hard to conceive. Even so, why should the cells of the cephalic pole of the embryo alone be affected so that the resulting fetus should bear a resemblance to the mangled child; instead of the cells of the great toe or some other part of the embryonic cell-mass?

Such cases as the following are not uncommonly met with in the literature. The reporter delivered a woman of an anencephalus at the seventh month and put it in a jar upon his office table where another woman, pregnant about ten weeks, saw it as she came to consult the doctor. She is said to have been much frightened and shocked at the sight of this "imp staring her in the face." Six weeks later she miscarried, giving birth to a four months fetus, also an anencephalus of the same type as the former. The author has them pictured convincingly side by side. He naively states that he could get no history of maternal impression in the first case.

A case of so-called "Kynocephalus" was reported within a few years in Chicago where the maternal impression was due to the mother being frightened and bitten by a dog. When the child was born its head was supposed to resemble that of a dog; hence the name coined. To make the thesis more conclusive the skulls of dog and fetus were shown side by side.

While two months pregnant, a woman saw a pet kitten torn and mangled by a dog. This horrible sight caused her much mental shock. The inevitable old woman prophesied that a monster would result. At four and one-half months the woman aborted, giving birth to a hemimelus anencephalus. Each limb ended with the first bone and the entire vault of the cranium with its contents was wanting. Of course the reporter agreed with the old woman that the impression caused the mon-

ster. The kitten's legs were partly torn off by the dog and that accounted for the hemimelus, while the fact that the terrifying object was a cat accounts for the anencephalus, which made the head look something like that of a cat.

In the first place the theory of maternal impressions should explain all cases. In spite of diligent search into the former history of the pregnancy, in most cases no event is found which could account for the presence of the particular anomaly under consideration. Thousands of anencephali and other monsters are born without the possibility of the most diligent inquiry eliciting any story of fright by cat, frog or other animal, or indeed, any unusual occurrence during the pregnancy. Conversely, all cases of fright or nervous shock during pregnancy should be followed by the birth of a monster or at least of a child showing some anomaly. Comparatively few women, especially susceptible as they are to nervous stimuli on account of the pregnancy, go to term without at some time having a mental shock or a fright at least as great as most of those reported as evidence of maternal impression. As a matter of fact monsters and even slight anomalies are rare when we consider the number of children born every day.

If maternal impressions had any etiological influence upon the production of monsters the kinds and classes of such monsters ought to bear a relationship to the kinds of impressions that produced them. We should not expect that monsters would exhibit species and genera according to definite scientific laws, as they undoubtedly do, but should rather expect that there would exist monsters looking like dogs, corresponding to the mothers who were startled or "impressed" by dogs, others like cats, others like elephants and so on *ad absurdum*. As a matter of fact monsters and anomalies follow as definite laws of etiology and classification as do any other natural phenomena. How shall we account for certain purely internal malformations, perhaps of organs which the mother did not know existed? As ex-

amples are to be mentioned diaphragmatic herniæ, transposition of viscera, bifid uterus, supernumerary spleen or cardiac anomalies.

Now embryology teaches us that certain organs and parts begin and attain their development at certain different and definite times during gestation. The same cause acting at different times upon the same part of the embryonic cell mass will have vastly different results. It is hardly conceivable that a mental impression of the mother would be able to influence the form of the fetus to the extent of removing structures already formed. Thus the sight of a one-eyed man during the middle of pregnancy could hardly be expected to cause one of the eyes already formed to disappear, leaving only one, and that in the middle of the forehead, as in cyclops. Yet we know that the eye vesicles begin to bud out from the cerebral vesicles, one on each side, during the first fortnight. So with most of the anomalies. The organ in question is usually far on in its development and beyond the reach of any determining influence during the early weeks or even days of gestation, while most of the maternal impressions reported occur late in pregnancy. Most women do not know that they are pregnant before one or two months have passed and therefore are not on the alert to remember the mental impressions occurring during the early weeks.

If it is hard to conceive how mental conditions of the mother could remove any part of the embryo, it is even more inconceivable how they can add anything. How can the redundant anomalies, the supernumerary organs or digits, but especially the double monsters, be accounted for by the theory of maternal impressions? There is a normal fetus in the uterus; in the midst of the pregnancy the mother sees two dogs joined back to back in coitus, and in due time there is born a pygopagus, a double monster united at the nates. In their time the famous Hungarian sisters were thus accounted for.

If maternal impressions explain human

anomalies they should also explain such occurrences among the lower animals and even among plants. Monstrosities are perhaps more common among domestic animals and fowls than among men. They are even relatively common among reptiles, fishes, insects, not to speak of nuts, oranges and corncocks. The hen that laid the egg from which was hatched the monstrous chick may have gone to the pot long before the egg was set under another hen, or perhaps under a turkey. Indeed, there is a greater proportion of monstrosities from eggs hatched in incubators than under the birds themselves. Is not the mammalian or even the human ovum, from the moment of impregnation, or from the moment of its escape from the ovary, as much outside of the influence of the mother's body, except for nourishment, as is the egg of the fowl or the fish? The placental villi commingle with the greatest intimacy with the glandular tissue of the uterus but at no time nor place does the maternal tissue coalesce with that of the fetus nor even does the mother's blood reach the veins of the offspring. How then can any nervous stimuli, even of some obscure trophic character, reach the growing embryo from the brain of the mother?

The strongest blow is dealt to the theory of maternal impressions by the results of experiments in the production of monsters artificially. Innumerable experiments have been performed upon the eggs of bird, fish, insect and echinoderm which have resulted in the production of almost all the typical varieties of monsters, especially of single monsters. Different varieties can even be produced at the will of the experimenters by different ways of managing the eggs. Monstrosities can be artificially produced in the embryos of birds exactly like those which, occurring in human fetuses, are ascribed to mental shock or nervous impression of the mother. It has often been observed that fish eggs hatched in running water produce a far greater proportion of double embryos than do those hatched in still pools. The shak-

ing caused by railroad or wagon journeys to the hatchery also results in a greater profusion of double monsters. In human fetuses even at full term there are sometimes found remains of amniotic bands and adhesions which obviously, by interfering with the development of different parts at an early period of gestation, were the causes of various malformations. In short, all malformations and monstrosities can be explained by purely physical and mechanical causes, entirely remote from psychic influence, so that there is never any reason to invoke the mysterious or the supernatural to explain natural phenomena.

DISCUSSION.

DR. JOHN H. HOLLISTER, Chicago: I wish to raise this inquiry, as it occurs in relation to these monsters, that the dependent cause seems to be closely related to the terminal condition independent of the maternal impression. I wish to relate a case which seems to some extent to have been dependent upon maternal conditions rather than upon nervous or mental impressions. A good many years ago I attended a woman, at the seventh month, and delivered an acephalous monster, which in general was pretty well developed. I was careful not to present the facts to the parents, and neither of them could have had any communication with the woman. They were never aware of the malformation. I attended the same woman two or three years after that and delivered her of a naturally developed and finely formed female infant, who is to-day a beautiful girl, well formed in every way, and living in Chicago. Two years later I attended the same mother, and another acephalus monster was delivered and taken care of in like manner by myself. The mother could not have had any impression made upon her from the first that could have influenced her later; at the same time, there was something in her condition in which malformations seemed to be the rule rather than the exception. It is a case that has been very interesting to me and has led me to believe that there are certain conditions incident to the mother that are entirely independent of maternal impressions which give rise to those malformations.

DR. W. X. SUDDUTH, Chicago: The paper presented by Dr. Lewis is an excellent one, covering the subject in all its phases. The only exception that I would take to the paper perhaps, is the positiveness with which the author disposes of the question. For seven years, as one of the senior editors of the *Annual of the Universal Medical Sciences*, I had an opportunity to study the literature presented from this standpoint, and I must say that a prolonged and careful study of the subject leads me to

have more respect for maternal impressions than I had when I began the study of the subject.

The point raised by the author of the paper regarding the necessity for a correspondence between the impression and the stage of embryological development is a good one. The other point raised by the writer of the paper, that it would be impossible to add to a fetus in such a way as to produce a double monster, is a good one. In his paper I believe he made the statement that there is no nervous connection between the mother and fetus at this time, and the further statement that the fetal body is a foreign body to the mother. I do not think those are good points. It is not necessary that nervous tracts should be established in order that the transmission of thought shall take place. Continuity of structure, irrespective of nerves of the body, is demonstrated beyond question. The fetus cannot be said to be a foreign body in the sense that it does not respond to maternal nourishment or maternal impressions. While I am not ready to commit myself to the statement that maternal impressions do influence the development of the fetus to such an extent as to develop a monstrosity or anomaly, yet I do not think we can say with the assurance of the writer of the paper that physical conditions have been established to explain these conditions. It is yet a field unexplained, and as long as it is not explained it is a subject for investigation, and I know of no field of investigation more promising than the one that has been presented by the essayist. I should like to see the subject handled in the most serious way and the other side of the question presented. I am not prepared to discuss the subject any further than to remark, that I am convinced, from my studies of the subject, that there is a relationship between maternal impressions and some of the anomalies and monstrosities we find in practice.

DR. BERTHA VAN HOSEN, Chicago: As a teacher of embryology, I have had considerable experience in incubating chicks, and during January, February and March we have tried hard to get good specimens, and we find only a small per cent. of the chicks are ever healthy, the majority of them being deformed in some way, and if they continue to develop, they develop into some monstrosity.

DR. LEWIS (closing the discussion): The case of anencephalous monster reported by Dr. Hollister was extremely interesting to me. It is a rare thing to have two anencephali born from the same mother. We do not know exactly the cause or causes of all monsters; we are getting to know more and more about them. In the case narrated by Dr. Hollister it is quite likely that the same conditions occurred in both instances. We know very little about the subject of anencephalus. It is due to deformities of the cranium and spine, caused by adhesion in almost all cases of the amnion with some portion of the cerebro-spinal axis. The rest of the brain grows while this part of the

amnion does not grow, leaving a portion which will not be covered by vertebral bones, and also a retroflexion which is common in encephali and rhaciphagus.

I recognize the vast experience Dr. Sudduth has had in the literature of this subject and the amount of information he has collected. The Annual he speaks of has been of vast service to me in my work on teratology. Of course, we cannot say that it is absolutely necessary there should be a nervous connection, yet, unless we can prove there is such a connection, it is not necessary to raise a metaphysical question to account for things which can be accounted for with greater probability in other ways. As he says, it is unexplained; we do not know anything about it. There is a vast field for research along the lines of embryology and pathology with reference to these monsters. It seems to me, we must recognize nervous impressions.

CAPUT OBSTIPUM MUSCULARE.

BY M. L. HARRIS, M. D.

Professor of Surgery, Chicago Policlinic.

The early notions or fancies concerning the cause and nature of Caput Obstipum Musculare, or Torticollis, have but an historical interest and need not be mentioned here.

The first real knowledge of the subject may be said to date from Strohmeyer's article in 1838. Previous to that time the trouble was supposed to be congenital and, hence, of intra-uterine origin, but Strohmeyer expressed the opinion, based upon personally observed cases, that the condition was not a congenital one, but was due to lacerations of the sterno-cleido mastoid muscle produced during labor with resulting cicatricial contraction.

This opinion prevailed almost exclusively until 1884, when Petersen revived the old Dieffenbach idea of an abnormal position in utero producing a congenital shortening of the sterno-cleido mastoid muscle with deviation of the head in a manner analogous to the production of congenital talipes.

Petersen defended his opinion quite earnestly and, for several years, the controversy waged between the adherents of Strohmeyer on the one hand, and Petersen on the other.

A gradual accumulation of facts, how-

ever, has finally furnished a preponderance of evidence in favor of an intra-partum trauma as the primary factor in a large majority of all cases, and Petersen's congenital shortening of the muscle, while not considered absolutely impossible, is admitted to be so rare that it may practically be omitted from consideration in a study of the etiology of these cases. The facts which led to this conclusion may be briefly considered: Küstner showed that intra-partum lacerations of the sterno-cleido mastoid muscles with the production of greater or smaller hematomata are quite common. These lacerations are not due necessarily to excessive traction, but may occur as a result of rotation of the head in a normal labor.

Küstner as well as Kader were able to produce similar lacerations on the child cadaver by rotation of the head. Spencer in 300 autopsies on still born, or babies dying shortly after birth, found 15 cases of laceration of and blood extravasation into the sterno-cleido mastoid muscle. Not all cases of laceration of these muscles are followed by contraction, as Powers found in 106 cases of such injury that restitutio ad integrum occurred in 75 per cent.

It is thus evident that some other factor in addition to the trauma is essential to the production of the subsequent contraction. This, according to the pathologico-anatomical studies of Kader, and the experimental work of Heller, has been found to be an infection. The histologic changes are such as are usually observed in inflammation of muscle. The transverse striæ are lost, there is round cell infiltration, the muscle elements undergo longitudinal fibrillation and segmentation and gradually disappear, being replaced by new connective tissue. Various stages of the process may be observed in different parts of the muscle.

A peculiar feature of the changes is their slow progressive character. Starting from one or more centers the process extends slowly until the greater portion of the muscle often becomes involved. This progressive feature is so characteristic that

Kader has applied the term *myositis fibrosa progrediens*. I present photo-micrograph of sections of an exsected muscle showing these changes.

Particular attention is directed to the marked changes in the blood vessels. One specimen in longitudinal section shows a remarkably tortuous or serpentine course of the vessels. Upon transverse section, the vessel walls are markedly thickened, showing great subendothelial proliferation. The vessels are surrounded by much new-formed connective tissue which has taken the place of muscular tissue. Much of the muscular tissue has lost its muscular character and become converted into fibrous tissue.

The inflammatory changes are not usually limited to the muscle involved, but extend to and involve the muscle sheath, the adjoining fasciæ, the vascular sheath, the lymphatics, etc. The muscle thus becomes firmly attached to the surrounding structures. The process frequently extends to adjoining muscles, as for instance the anterior portion of the trapezius, the scaleni, platysma, etc.

It was contended for a long time that the process was not inflammatory in its nature, nor the shortening due to cicatricial contraction for the reasons that a muscle when divided or ruptured usually heals not with shortening, but with lengthening, and that shortening does not commonly follow even a suppurative myositis. The experimental work of Heller, however, has settled this question.

By producing partial or complete rupture of muscles in animals, and infecting them he was able to obtain contracted shortened muscles, exhibiting identical histologic changes with muscles exsected in *caput obstipum musculare*.

Presenting still further confirmatory evidence of the inflammatory nature of the process may be mentioned the cases that occur following the acute infective diseases as diphtheria, scarlatina, etc., and following traumata to the sterno-cleido mastoid muscle in adults.

Considerable emphasis is placed on the

fact that the affection is of a progressive, inflammatory nature as this has an important bearing on the method of treatment.

As the chief controversy has been between the congenital theory on the one hand, and the post-natal inflammatory theory on the other, we may briefly recapitulate the facts which have established the supremacy of the inflammatory theory.

Chaussier found upon examining 23,292 infants in the Paris maternite, 632 congenital malformations, but not a single case of torticollis.

Lacerations of various degrees of the sterno-cleido mastoid muscles are quite common in the new born particularly following difficult forceps or breach labors. Ninety per cent of the cases of torticollis in Mickulicz's series had followed breach or difficult forceps labors. The contraction is not present at birth but develops slowly thereafter. The time at which it is first perceptible varies from a few days to several months after birth.

The contraction is usually preceded by a visible swelling at some point on the sterno-cleido mastoid muscle, due to the haematoma following the laceration, plus inflammatory exudate.

The histologic changes found in the muscle upon examination with the microscope are those of a chronic myositis. The inflammatory changes are not limited to the muscle itself, but extend to and involve surrounding structures such as fasciæ, muscles, and the lymph glands receiving tributaries from the affected area.

The contractions occasionally follow the acute infectious diseases including rheumatism and traumata. Identical conditions have been produced experimentally in animals by lacerating the muscle and infecting with pathogenic microbes. These facts would seem to establish the nature of the disease beyond controversy.

The clinical history of the disease is so familiar that it need not detain us. I would simply call attention to the fact that early during its course it is progressive; nor will we stop to consider the secondary changes which take place in the growth

of the face, head, spine, etc. We may proceed at once, therefore, to a consideration of the treatment. This may be discussed under four heads:

Orthopedics,
Subcutaneous myotomy,
Volkmann's open myotomy,
Myectomy.

By orthopedics is meant the attempt to overcome the contraction of the muscle, and thus the deformity, by means of braces, bandages, gymnastics, massage, etc., etc. As it is almost impossible to overcome a pathologically contracted muscle with any force short of producing laceration or rupture, this method is successful only in mild cases. The method is further more tedious, troublesome and prolonged and will not be further discussed.

When subcutaneous tenotomy and myotomy came into vogue, the operation was at once applied to torticollis. As the muscle is not the only part involved, the process usually extending to the muscle sheath, surrounding fasciæ, etc., the results of simple myotomy were not as satisfactory as had been hoped. Furthermore, this method had to be followed by a prolonged course of orthopedics. Relapses were common.

The close proximity of important blood vessels and nerves to the sterno-cleido mastoid muscle makes the too free use of the knife in the dark somewhat dangerous, hence Volkmann proposed to divide the muscle by the open method. A free incision is made through the skin thoroughly exposing the muscle which may now be divided without danger to contiguous structures. Not only should the muscle be divided, but also all contracted bands of fasciæ and connective tissue which interfere with the correction of the deformity.

This method, while a great improvement over the subcutaneous myotomy, is not entirely successful in all cases as the muscle cannot be released fully from its surrounding attachments by simple division, and imperfect results with a tendency to relapse follow. In view of the

unsatisfactory results following former methods, and based upon the progressive inflammatory nature of the affection; Mickulicz in 1895 proposed complete extirpation of the sterno-cleido muscle in these cases.

A free incision exposes the muscle which should be thoroughly dissected out together with its sheath and all the surrounding involved fasciæ and connective tissue. If other muscles such as the trapezius or platysma are implicated, they should be removed to the extent of their involvement.

It will seldom be necessary to carry the extirpation higher than the point where the muscle is transfixed by the spinal accessory nerve as the lower half of the muscle is the part most frequently involved, but should the upper part also be affected, it should likewise be removed, the spinal accessory nerve being preserved by careful dissection in order that the anterior portion of the trapezius muscle be not paralyzed.

During the healing process the head should be fixed in an over corrected position. The advantages of this method are: that the thorough removal of all contracted tissues permits at once complete correction of the deformity, and that the tendency to recontract having been gotten rid of, the necessity of prolonged post-operative orthopedic treatment is obviated.

I will detail but one case from the number I have operated as it illustrates typically the points mentioned: Miss M., aged 10 years, born of healthy parents; first child; labor was very difficult, lasting over 36 hours; head presented; weight 12 lbs.; was quite asphyxiated when born, and energetic efforts were made to induce respiration. On the fourth day the mother noticed a swelling on the left side of the neck as large as her thumb. Her physician prescribed a linament for it, and the swelling gradually disappeared. The mother always thought that side of the neck harder than the other, but not until the child was two years old and walking around was it noticed that her head was

not held quite straight, but inclined somewhat to the left. The inclination increased gradually until the age of four years, since when it has remained about the same.

She was ten years of age when she came to me in August, 1897. An examination revealed the head inclined to the left with the chin rotated to the right. Left sterno-cleido-mastoid very prominent, hard and markedly shortened. Clavicular portion seemed much harder than the sternal portion. Distance from the left mastoid to the left sterno-clavicular joint 7 CMS. Right 11 CMS. Left mastoid to acromion 10 CMS. Right 14 CMS.

Owing to an inclination of the sternum and raising up of the left clavicle, the left sterno-clavicular joint was 2 CMS. higher than the right. The retarded development of the left side of the face was very striking, the sagittal line of the face presented a marked convexity to the right. There was the usual compensatory spinal curvature.

Cervical right convex.

Dorsal left convex.

Lumbar right convex.

On August 19th, at the Policlinic Hospital, the sterno-cleido-mastoid muscle was removed as far up as the spinal accessory nerve, together with a portion of the platysma, the muscle sheath, and considerable fasciæ which were involved in the contracted mass.

The head was placed at once in an over corrected position where it was retained for about two weeks when the dressing was removed and the child sent home. A system of light gymnastics was prescribed in order to hasten the correction of the spinal curves.

The result has been perfect, and that in a year and eight months, even the asymmetry of the face has almost entirely disappeared.

In conclusion, the points I wish to make are:

First—Caput Obstipum Musculare is a post-natal chronic inflammatory condition due to infection affecting principally the

sterno-cleido-mastoid muscle, and accompanied by contraction.

Second—The affection is primarily for a variable though considerable time progressive.

Third—The best treatment is complete extirpation of the contracted muscle with the involved surrounding tissues.

IMBRICATION OPERATIONS FOR RADICAL CURE OF HERNIA.

BY E. WYLLYS ANDREWS, M. D., CHICAGO.

It affords me great pleasure to report a series of herniotomies for radical cure by the method described before this Society at the 45th annual meeting (Transactions 1895, p. 447).

As a number of operators who use the method have been kind enough to give me their results, I am now able to report cases.

I will not repeat in detail the description of this simple technique which has already been published several times. It is an operation free from complexity by anyone and offering little or no danger to life.

I wish only to call attention to the importance of the posterior wall of the inguinal canal in all hernia work. In hernia, and especially in large hernias, the conjoined tendon and internal oblique and transversalis muscles are not all in the relations found in the normal subject. They are in other words markedly deficient at the point it is most needed to repair.

This you will find in trying to do the Bassini operation on cases having large rings. The internal ring is so enlarged that it extends almost to the border of the rectus sheath.

When you attempt to place the deep row of stitches in place, the tension will be found too great and Poupart's ligament will be dragged upward or else no solid posterior wall to the canal is formed.

This defect requires a plastic operation for its repair. It is interesting to note how many ingenious plans have been devised to fill this gap.

Bone plates and sponge grafts have been

tried. Flaps formed of fascia lata, and even strips of thigh muscle, such as the tensor vaginae femoris, have been advocated. Woelfler operated by making a sort of trap door flap of the anterior sheath of the rectus muscle, which he turned over and sutured behind the cord.

My own method consists of sliding downward behind the cord the upper flap of external oblique aponeurosis which was formed when the canal was laid open. This is sutured strongly to Poupart's ligament along with the conjoined tendon, and the transversalis fascia, which Bassini depends upon. When this is done the posterior wall looks very smooth and strong, and really is so. The method is really a flap operation. The operation is completed by laying the cord down upon its new bed and covering it by the lower flap of the external oblique aponeurosis. This, when sutured down, forms a new canal or renews the old one. It also gives us strong overlapping surfaces which can hardly fail to unite, and doubles the thickness of the abdominal wall at the weakest point, namely, behind the cord.

I leave out of consideration the treatment of the sac and various minor points, which are common to other operations. I find in my record reports, including strangulated hernias, of over three hundred operations.

Dr. L. L. McArthur, of Chicago, has used no other method for several years, and has nearly fifty cases. Dr. Cole, of Helena, Mont., now reports twenty-four cases. Dr. Eagleson, of Seattle, Wash., over thirty. Dr. Greensfelder, of Chicago, about twenty-five. Dr. Smith, of Streator, Ill., about thirty-five. Dr. H. H. Whitten, of Peoria, was kind enough to write me recently of two cases, one over two years duration without relapse, and I know of several others who have small series. Summarizing, we therefore have,

TOTAL IMBRICATION OPERATIONS.

E. Wyllys Andrews	309
L. L. McArthur	45
Eagleson	27
Cole	24

Greensfelder	25
Smith	35
Whitten, Eisendrath, Bailey and others, about	20

Total485

The mortality in this series is to the best of my knowledge nil.

OPERATIVE TREATMENT IN HIGH DEGREES OF MYOPIA.

BY ALLEN T. HAIGHT, M. D., CHICAGO.

Professor of Ophthalmology, Chicago Clinical School;
Attending Eye and Ear Surgeon, Cook County
Hospital and German American Hospital;
Oculist and Aurist to the Illinois
Industrial School for Girls;
Member of the Amer-
ical Medical As-
sociation, etc.

The advance of civilization has brought many advantages and blessings to the human race but has also furnished extra care, extra requirements on mentality, and necessarily a decided increase in the use of the eyes, especially for near work. This constant and continued use of the eyes for near work is one of the most potent factors in the production of axial myopia. By axial myopia we mean a receding of the posterior portion of the eye, making the distance from the cornea to the macula greater than normal. This is brought about by the combined action of accommodation and convergence.

The condition is most frequently acquired by children compelled to do a great deal of studying, at close range, perhaps in very poor illumination, and also by persons engaged entirely in fine work, which they hold close to the eyes in order to get a perfect image on the retina. The accommodation is used to a greater degree than normal, and the action of the internal recti muscles is increased so far as to fix both eyes upon the near work, thereby bringing a strain directly on the sclera at the temporal side of the head of the optic nerve. Under this continued tension or stretching the sclera at this point soon assumes a condition of inflammation, and gradually we have a chronic sclerochoroiditis which is followed by an atrophy and thinning of the sclera and afterward by its

gradual separation from the optic disc. In this way that portion of the eye between the optic disc and the macula lutea is weakened and is forced back by the normal tension of the eye, and we have established a change in refraction known as myopia. It is not necessary to state here that this is not the only cause of myopia. It is, however, the most frequent cause of myopia of high degrees.

Heredity plays a very important part in progressive myopia. It is true that the children of myopic parents are rarely, if ever, born near-sighted. On the other hand they have an undoubted predisposition to myopia, since they are prone to inherit the anatomical peculiarities of their parents, and if forced to continue studies or to enter occupations requiring near work they usually develop myopia.

Experiments have been made with children of normal eyes not predisposed to myopia and children with normal eyes predisposed to myopia, that is, whose parents, one or both have been myopic, with the result that the greater percentage of the latter under close work in school have developed myopia.

Dr. B. Behim Schwarzback has reported in the British Medical Journal, examinations of the eyes of 1,853 black people, mostly children, natives of towns in the middle province of South Africa, with the astonishing result that only 87 out of this number had weaker sight than the normal sighted Caucasian, the others possessing acuteness of vision equal to or greater than the normal sight of the European. The subnormal sight mentioned was due to myopia acquired at school, thus proving that the detrimental causes which produced short sight in children of the white race have the same effect on the optic organ of the dark race.

If it were possible to have made an examination of the eyes of the aborigines of this country, no doubt the percentage of acuteness of vision would have been similar to this result, as in our day the great acuteness of vision of the American Indian is well established.

Since in this paper we shall discuss operative treatment of high degrees of myopia,

we will not refer to myopia of less than 12 diopters, further than to suggest a regime for myopia of less degree. How often the oculist hears the parents or guardians of children who come under his care remark that the child is a regular bookworm and reads continually at every opportunity, and prefers reading to playing out of doors with other children. Now, the reason for this will, with very few exceptions, be found in the fact that the child is myopic or near-sighted and not overstudious, and derives enjoyment out of reading because he can see to read and cannot see in the distance well enough to enter in the outdoor pleasures of other children of his age. The parents of these children, laboring under the impression that they are very studious and exceptionally bright—and they are brighter than most children of their age—will strain a point to give them superior educational advantages and fit them for some occupation that will require life-long use of the eyes for close work, and think they are doing their duty. The fact is they are putting that child in the best possible position for him or her to develop a progressive myopia of high degree, and possibly entire loss of useful vision, if not complete blindness. These children should be carefully refracted, deprived of as much reading as possible and placed in some occupation best calculated to avoid close application with the eyes or much work in a stooping position.

Operative treatment of myopia consists of the removal of the lens from the eye, and by so doing we must consider the following: 1. We reduce the myopia from 10 to 16 diopters, according to the eyes of the patient. 2. We improve distant vision and impair near vision. 3. We destroy the power of accommodation. 4. We stop the progress of myopia. 5. We materially lessen the probability of complete blindness resulting from choroiditis or detachment of the retina.

For people who are compelled to do near work the operation offers few advantages, but there are many who will derive great benefit and advantages from the operation. The operation of removal of the lens for myopia has been performed with gratify-

ing results many times in Germany and Austria, frequently in France and England, and a comparatively few times in the United States. It is true we do not find as large a percentage of myopia in this country as in Europe, but there are very many people in America who would derive great benefit from the operation. The first suggestion of operative treatment for myopia is found in the writings of Abbe Desmonceaux in 1776, quoted by Otto. Adolph Weber, in 1858, at the Ophthalmological Society of Heidelberg, suggested the removal of the lens for myopia and stated that he had frequently performed the operation with success. In the discussion which followed Von Graefe spoke against it. Six years later, Donders ridiculed it in his writings. Nothing more was heard of the operation until Fukala published his paper in 1889. Vacher, before the French Society of Ophthalmology, on "The Treatment of Progressive Myopia and the Prevention of the Transparent Lens," claims to have made the operation before those of Fukala; however, Vacher brought forward the removal of the transparent lens as a means of suppressing the myopia. He gave the results of seven operations in patients, all of whom were over 30 years of age, with myopia of 15 diopters and upward, and marked or advancing staphyloma.

Pflueger, before the congress at Rome in 1894, stated that he had performed discissions of the lens in one eye on thirty patients affected with high myopia. The degree of myopia varied from 10 to 20 diopters, the age of the patients from 10 to 40 years. In all the cases sharpness of vision was increased. In many cases it was doubled and even tripled. No evil results occurred in any of his cases.

Von Hippel, in a paper read before the Ophthalmological Society of Heidelberg, reports his results of 60 operations, the degree of myopia varying from 10 to 20 diopters, and the ages of the patients from infancy to 50 years. He found that choroidal lesions, even when extensive, are not aggravated by operation. In all cases discission was practiced after an installation of atropin. At the expiration of about

a week a softened mass of lens was evacuated without iridectomy.

In some instances vision acuteness rose to 6.6, and in most cases it was from 4 to 6 times better than before the operation.

Wrag reports 123 cases of myopia, 246 eyes, with especial reference to points upon which the advisability of operation of removal of the lens was based. Of the above number 38 cases including other cases of detached retina had vision less than 6.36 in one eye and 10 had less than 6.36 in both eyes. He considered that his figures admitted of three deductions: that the vision was invariably less in the fourth decade than in the third; that retinal detachment is less to be feared than the changes in the retina and choroid; and that it is not necessary to regard every myopia of 12 diopters and upward as hopelessly drifting to a detached retina and blindness.

Julius Archer has collected reports from various quarters, of about 400 cases, which have been operated on up to 1895. In most of the cases the myopia existing at the time of the operation was arrested in the eye operated on, during which time it continued to advance in the eye on which no operation had been performed.

Goldzieher said that the operation was a wondrous advance in ophthalmology, and in most of his cases perfect vision without glasses was obtained.

Professor Fuchs, of Vienna, discussing operative treatment of myopia, says: "In all people where a high degree of myopia exists an application of lenses, even when the retina and choroid are sound, is proved a practical failure." He suggests the removal of the lens as a "radical cure." Since that time he has shown many excellent results that have convinced oculists of its utility.

F. Otto reports the result of eighty-five cases of high myopia operated on by discission, with subsequent removal of the lens by linear operation.

Professor Noyes remarks of myopia, reviewing over 1,700 cases operated on in private practice, that it is found that 7.6 per cent exceed 10 diopters. In these it

was rare to find visions above .4; in many instances it was much less.

In operating on such cases two serious considerations arise: 1, an intra-ocular hemorrhage; 2, detachment of the retina. A third possibility cannot be entirely ignored, viz., a low grade of iridocyclitis, produced by traumatism causing turbidity of the vitreous and defeating the purpose of the operation. While hemorrhage may be spontaneous it is not produced so readily by needle operation as by section for extraction and published reports do not specify this accident. On the other hand detachment of the retina is the misfortune chiefly dreaded.

Darier, before the International Congress of Moscow, gave an account of 142 cases operated in his practice, in 85 per cent of which a distinct improvement in vision could be shown. In 10 per cent vision was stationary and in 5 per cent the eye was lost. This occurred in three cases from an infectious process and in four cases from the detachment of the retina.

According to Distler the operative treatment of high myopia is almost without danger. The acuteness of vision is improved and binocular vision is restored. Loss of accommodation is not a serious disadvantage. The danger of hemorrhage or detachment of the retina is not lessened by the operation, nor is it increased.

Gelpke and Bihler operated on every myope whose vision could not be improved sufficiently with glasses. They have operated on 74 eyes, with bad results in 3.4 per cent. The average increase in acuteness of vision was fivefold.

Meighan, Sweigger, Alt of St. Louis, Sattler Panas, Lindsay, Johnston, Prof. Szili, Drussart, Morren, Edward Jackson, Frost, and others have reported cases of operation with a great percentage of improvement in vision and decrease in development of change in the fundus.

Grosz thought the operation should still be held in reserve and that we are not justified in operating in every case with confident hope of uninterrupted success.

Most operators advocate operating first by discission and subsequently by extraction of the opaque lens mass by linear incision without iridectomy. Some, however, operate by a simple repeated needling.

Dr. H. E. Stafford reports three cases of extraction of the clear lens of myopia. He made an ordinary extraction without any iridectomy, lacerating the capsule of the lens with the point of the knife as it passed across the anterior chamber. The lens was delivered by the lid. The results of these cases fully convinced Dr. Stafford that the operation should be done without attempting artificial ripening.

In my own experience I have operated upon several eyes; two by dissolution of the lens by needling and five by discission and subsequent extraction of the soft lens without iridectomy and am decidedly in favor of the latter operative procedure for several reasons: 1. The length of time required is in some cases less than one-third of that required by the first procedure, which is a very important point in your consideration of the patient. 2. There is less danger of adhesions forming between the iris and the zonula. 3. There is less danger of setting up a low grade of iridocyclitis from continued pressure of the lens substance on the ciliary body.

The results I have obtained in my operations have been highly satisfactory to me and to my patients, and I do not hesitate to advise operation in cases where myopia exceeds 12 diopters in either eye, in patients between 10 and 30 years of age, confidently expecting that I shall materially improve the vision of by far the greater percentage operated on.

Case I.—Miss O., aged 12 years, a schoolgirl with obscure family history, was seen in March, 1897. Vision in right eye was 10-200, left eye 2-200. Ophthalmoscope showed marked staphyloma posticum in both eyes with choro-retinitis more marked in the left, refraction -14 diopters in right and -16 diopters in left. Glasses did not materially improve the left eye and the best vision obtainable in the right was 20-100. The patient was unable to per-

form near work, with or without correction, with left eye on account of condition of fundus. Atropin was instilled in the left eye and discission was performed under cocaine anesthesia, followed by cold applications made to the eye to prevent inflammation from too rapid expansion of the lens matter. Four needlings were necessary to complete absorption, and a period of five months intervened before the pupillary space was clear and the eye pronounced well. Examination of the eye in July, 1897, showed the vision to be 20-80 or 1-4, a very satisfactory increase from 1-1000 before operation. The inflammation of the fundus had almost disappeared and patient was able to read fine print with a plus .5 sphere. Examination of the eyes in March, 1899, shows no change in the left but vision of the right eye is only 5-200, due to increased fundus changes.

Case II.—Mr. F., aged 18 years, a schoolboy, with normal heredity, was seen in April, 1897. He had myopia of 18 diopters in the left eye, 23 diopters in the right, and posterior staphyloma in both eyes. No further fundus changes were present. Vision O. D. 5-200, O. S. 4-200. Best vision obtainable with glasses was 20-80 in the right with -15 diopters and 20-100 in left with -18 diopters. Left eye operated with discission April 20, followed by linear incision and extraction of softened lens mass ten days later. Some lens matter remained in the eye and needling was done five weeks later. Three months after operation vision was 20-30 for distance and patient was able to read with -3D. Right eye was operated on in similar manner on September 10 by discission and later by extraction of lens with no final needling required. Vision in this eye was 20-40 and patient could read 20-30 with -1.50, axis 120° and fine print with plus 2D. Patient had binocular vision after operations.

Case 3.—M. F. G., a bookkeeper, aged 22 years, was seen in June, 1898. His father was myopic. The patient had myopia of 8 diopters each eye. Ophthalmoscope showed -15 diopters in each eye with

posterior staphyloma and hyperemia of retina. Vision in each eye was 5-200. Vision in right eye improved to 20-100 with -15D. Vision of left eye improved to 20-100 with -12, -3cyl. axis 180°. Patient's right eye operated first, followed two months later by operation on the left—both by discission and extraction of lens mass without iridectomy. Recovery was uneventful except for formation of secondary cataract in each eye which required needling. Patient had 20-40 vision in each eye after operation and was able to do all ordinary work with glasses, but required plus 3 in right and plus 4 in left for reading. A peculiar feature of this case was the disappearance of 3 diopters of astigmatism from left eye after operation.

Case 4.—Miss M. J., aged 11 years, a schoolgirl, with obscure family history, was seen in December, 1898. Ophthalmoscope showed myopia of 10 diopters with right eye, and 16 diopters in the left. There was beginning posterior staphyloma in the right eye, marked in the left. Vision O. D. 10-200, vision O. S. 4-200. Vision O. D. 20-30 with -8D. Vision O. S. 20-200 with -14D. The left eye was operated on by discission and lens mass allowed to absorb. Five needlings were necessary for complete absorption and nearly six months' time elapsed. The best vision obtainable in this eye was 20-60—and patient has a slightly irregular pupil. She is able to read with a plus 5D. The right eye will be operated on if the myopia increases.

BIBLIOGRAPHY.

- Fukala: Archiv fur Ophthalmologie, Bd. xxxvi, 1890, p. 230.
 Meighan: Glasgow Medical Journal, 1894, vol. xli, p. 168.
 Sweigger: Annales d'Oculist, 1893, p. 393.
 Pflueger: Annales d'Oculistique, 1894, cxl. p. 362.
 H. E. Stafford: New York Polyclinic, 1894, p. 172.
 Von Hippel: Annales d'Oculist, cxiv., 1895, p. 222.
 Sattler: Annales d'Oculist, 1895, p. 222.
 Lindsay Johnson: Trans. Ophthal. Soc. of the United Kingdom, vol. xv, 1895, p. 239.
 Alt: American Journal of Ophthalmology, June, 1895.

Wray: British Medical Journal, 1895, vol. i, p. 304.

Panas: Gazette des Hospitiaux, Paris, 1896, vol. lxi, p. 1461.

Julius Ascher: Deutsch. Beit. zur Augenheilkunde, Heft. xxiii, p. 21.

Prof. Szili: Vienna Correspondent, Medical Press, 1896, p. 452.

Goldzieher: Vienna Correspondent, Medical Press, 1896, p. 452.

Droussart: Rec' d'Ophthalmologie, June, 1897.

Mooren: Die med. u. operativ Behand. kurz-siechtiger Storungen, Wiesbaden, 1897.

F. Otto: Archiv fur Ophthalmologie, Bd. xliii, Lief ii und iii, 1898.

Noyes: Archives of Ophthalmology, 1898, p. 453.

Edward Jackson: Internat. Medical Magazine, 1898, vol. vii, p. 180.

Frost: Edinburgh Medical Journal, 1898, vol. xvi, p. 223.

Prof. Fuchs: Australasian Medical Gazette, 1897, vol. xvi, p. 551.

Adolph Weber: Edinburg Medical Journal, 1898, vol. xlv, p. 324.

Darier: Archives of Ophthalmology, 1898, p. 102.

Distler: Archives of Ophthalmology, 1898, p. 120.

Gelpke and Bihler: Archives of Ophthalmology, 1898, p. 120.

TRANSACTIONS OF

THE ILLINOIS STATE MEDICAL SOCIETY.

PROCEEDINGS OF THE FORTY-NINTH
 ANNUAL MEETING
 HELD AT

CAIRO, ILLINOIS, MAY 16, 17 AND 18, 1898.

SECTION 3—FIRST SESSION.

Dr. George W. Webster, of Chicago, read a paper entitled "Prevalence and Fatality of Alcoholic Inebriety."

Dr. Daniel R. Brower, of Chicago, followed with a paper entitled "Nervous Complications and Medico-Legal Relations of Alcoholic Inebriety."

These two papers were then discussed jointly by Drs. Sudduth, Van Horn, Edmiston, Wilson, Henry, Danforth, and the discussion closed by the essayists.

Dr. Columbus Barlow, of Robinson, read a paper entitled "Medico-Legal Aspects of Bright's Disease," which was discussed by Dr. Danforth.

Dr. H. C. Fairbrother, of East St. Louis, read a paper entitled "A Drop of Water."

A paper by Dr. A. C. Klebs, of Chicago, on the "Prevention of Tuberculosis," was read by title and referred to the Committee on Publication.

Dr. Frances Dickinson, of Chicago, offered the following resolution:

Resolved, That we hereby express our belief that the professional educational interests of the State of Illinois will be advanced by the abolition of the numerous State Boards governing dentistry, pharmacy, medicine and sanitary science, and by placing the State management of these educational interests into one educational board, elected by all the people—the Illinois State Board of Trustees.

After some discussion, this resolution was referred to the Judicial Council.

The Secretary announced the following as delegates to the meeting of the American Medical Association:

Harriet E. Garrison, Dixon.

R. H. Henry, Peotone.

Carl Wagner, Chicago.

E. W. Andrews, Chicago.

E. M. Sutton, Peoria.

A. C. Cotton, Chicago.

Daniel R. Brower, Chicago.

Geo. N. Kreider, Springfield.

Geo. W. Webster, Chicago.

Geo. F. Butler, Chicago.

Denslow Lewis, Chicago.

Frances Dickinson, Chicago.

Effie L. Lobdell, Chicago.

E. W. Weis, Ottawa.

D. W. Graham, Chicago.

J. M. Postle, Hinckley.

The President appointed Drs. Butler and Pettit to escort the newly elected President, Dr. Moyer, to the platform.

The retiring President introduced his successor as follows:

Members of the Illinois State Medical Society:

It affords me great pleasure to introduce one so fit and eminent as Dr. Moyer. I bespeak for him your hearty co-operation, and I know he will co-operate with you in

your efforts to advance the interests of this Society. He will be your President during the Jubilee Year, and I hope it will mark a distinct advance in the history of this Society, both in its numbers, influence and work. We promise to stand by him in any movements he may undertake in that direction. Gentlemen, I present to you Dr. Harold N. Moyer, of Chicago, your President-elect.

Dr. Moyer, in accepting the Presidency, said: Extended remarks at this time are perhaps inopportune. I am exceedingly grateful to the Society for having elected me as President. I feel it is an office of high honor and dignity, and while perhaps I might doubt your judgment in having chosen me as your presiding officer for the next year, yet inasmuch as you have selected me, I will try to do my best. The next meeting will round out half a century in the history of this Society, and it will be a time when we should, so to speak, take stock of what the Society has done and what it is capable of doing. It seems to me, that the Society is not as large as it ought to be, and that perhaps some of our methods need overhauling and revision. A Society of this kind becomes conservative, and perhaps properly so, but we can carry conservatism too far. I think I shall have some thoughts to present to you next year upon the organization of the medical profession. This Society does not number as many proportionately of the profession as it should, and its meetings are attended by altogether too few. A meeting that numbers a hundred and fifty of more members of a profession representing nearly ten thousand in number is certainly hardly a full representation of the profession, and this is largely to be overcome by organization. We have some difficulties in this State to contend with. Illinois is a tall State; its head lies down here between the Mississippi and Ohio Rivers, and its feet rest in the waters of Lake Michigan. It is difficult to organize such a long stretch of territory, with all its varying interests. But I think the Society should be a Society

composed of physicians outside of Cook County rather than those in Cook County, and it has been too much run by men from Chicago; that is, I do not say run unwisely, but Chicago men have been too prominent, and the mass of the profession outside of Chicago have had but little prominence in conducting the work of the Society. Out of a hundred and seven papers scheduled on this list, seventy-two are by men residing within Cook County, showing an entire disproportion as to numbers and intellectual capacity.

These few thoughts occur to me at this time as I assume the Presidency, and I shall submit to you several others at our next annual meeting, and beg of you to think a little for yourselves, think of some of these things, perhaps the advisability of having a permanent place of meeting, and some other radical changes. It may be that they are too radical, but it does not do any harm to try a thing. A body of men such as this is not bound to continue forever going on in the same way. It seems to me, we should try some plan to strengthen this Society and increase its membership, and if we find we are wrong, we can go back to the old way. The Illinois State Medical Society should number three or four thousand or five thousand permanent members, and at its annual meetings we should have at least from eight hundred to fifteen hundred in attendance, and if we are going to make the organization effective, this is the thing that is much needed. Gentlemen, I thank you. (Applause.)

On motion, the Society then adjourned to meet at Springfield, the third Tuesday in May, 1900.

EDMUND W. WEIS,
Permanent Secretary.

Dr. Michael C. Jennings, of 1737 Wabash ave., Chicago, a graduate of the Kentucky School of Medicine 1889, has been sentenced to twenty-five years in prison for the murder of Thos. H. Levers, as the result of a quarrel concerning the place where Levers tied his horse.

CASE OF SEVERE TETANUS SUCCESSFULLY TREATED BY BACCELLI'S METHOD.

BY B. B. GRIFFITH, M. D., SPRINGFIELD.

On July 4, George M., a colored boy aged 16 years, was admitted to St. John's Hospital, suffering from the characteristic symptoms of Tetanus. On June 30 he had shot himself with a blank cartridge in the extremity of the middle finger of the left hand. The injury was not penetrating in character, but of a glancing nature. The same had been dressed according to the most approved methods, and was entirely healed when admitted. His temperature on admission was 101°, pulse 120, respiration 30. The bowels had not acted for several days, and he was exceedingly nervous. He complained of severe pains in the back, stiffness in back of neck, cramping in the chest and stomach, and muscular soreness of the limbs, groaning constantly. Difficulty in swallowing marked, could open the jaws fairly well, was perfectly rational.

He was given calomel in quarter grain doses to be followed by a saline cathartic in the morning; also, a mixture containing chloral hydrate, bromide of soda and ext. of physostigma every three hours. Morph. sulph. gr. $\frac{1}{4}$ hypodermically at night, as necessary to quiet and prevent him disturbing others with his noise. During the night the tongue was bitten quite severely, causing that member to swell considerably. A cloth between the teeth during the muscular contractions mitigated the trouble from that source in the future. His sleep was very much disturbed by the muscular contractions, was also quite delirious at times, endeavoring to get up out of bed. On the morning of the 5th the temperature and pulse were practically the same. The bowels not having responded to the medicine given, a large plain enema was given, which produced a free action. During the day the restlessness increased. He would scream out frequently, complained of the pain in the abdomen and severe muscular pains caused by the contractions. My

attention having been called to an article by H. C. Moore, Jr., on the use of carbolic acid injections (the Bacelli treatment) in Tetanus, and considering this a suitable case, it was tried. Beginning with 10 minims of a 2 per cent solution every three hours and gradually increasing the dose to the point of tolerance. The medicine as prescribed the day previous was continued. Owing to inability to masticate, milk was depended upon as the chief article of nourishment. He would take from five to six pints during the twenty-four hours. He had a craving for plain soda water, which he was permitted to have in a limited amount. On the 6th of July nearly all the muscles were in a state of rigidity, so that it was almost impossible to change the position of the patient without causing him great discomfort, as the disturbance incident thereto would increase the frequency of the tetanic contractions. It was difficult to maintain a position on the side even after being so placed. Backache and pain in the abdominal muscles continued, patient screaming out on account of their severity. Not much change in the temperature and pulse, sleep continues to be disturbed by muscular contractions, actions from bowels and bladder frequently involuntary.

The best rest obtained was that from the morphia. The places where carbolic acid was injected commenced to be tender and somewhat swollen.

Thinking there might possibly be some nervous element contributing to the restlessness Elix. Valerianate of Ammonia was prescribed with apparent benefit in relieving the general nervousness, but without any influence towards relieving the muscular rigidity or contractions. On the morning of the 11th, the temperature was 100.1°, pulse 122, general condition about the same, muscular contractions not quite so frequent, difficulty in swallowing had increased. When changing position of the patient it is the same as turning or rolling a log. Pain at places where carbolic acid had been injected has subsided. There appeared a general eruption over the body,

which was attributed to the carbolic acid, the dose of which having now reached 30 m., was not increased. The muscular contractions do not recur so frequently, but are yet quite severe, so severe that the body frequently assumes an opisthotonous position, pain in back and abdomen still complained of. On the 13th patient commenced partaking of semi-solid food. On the morning of the 14th the temperature was 103°, pulse 124 and weak, great complaining of the pain in back, back of neck and limbs. The temperature remained high all day. Had a very restless night and on the morning of the 15th the temperature was 106°, pulse 138, irregular and weak. The outer aspect of the thigh where the carbolic acid injections had been made was very much inflamed and indurated. Muscular soreness and rigidity somewhat lessened. The carbolic acid injections were stopped, he having received in all seventy-eight injections. Cold, wet compresses were applied over indurated surface, afterwards 10 per cent ichthyol ointment and ice bag for the purpose of controlling inflammation. The temperature remained above 102° all day, even under sponge bathing every two hours. Most of the time the patient seemed to be in a comatose state. During the afternoon and evening there was a marked change for the better in his condition. He seemed more rational, took nourishment with a relish, and did not seem to suffer so much when the muscular contractions would come on, which by the way, were not so frequent. On the 16th the temperature was 101.6°, pulse 106 to 124, his general condition is improved, but still complains of the muscular stiffness.

The inflamed place on the thigh opened and there was a slight discharge of pus therefrom. There was a mild form of diarrhoea which was easily controlled.

The discharges from the bowels and bladder were frequently involuntary.

After the abscess discharged the temperature ranged from 101.4° to 103°. The same general treatment was continued as outlined, he seemingly improving as rapidly as could be expected. On the 25th he

was given iron, quin. and strychn. three times a day. The discharge from the abscess still continues. The temperature from now till the 1st of August ranged from 98.3° to 101.6°, the greater portion of the time being about 99°.

On the 1st of August Dr. C. M. Bowcock, who had seen the case several times, succeeded me in service, and took charge of the case.

The temperature August 1 was 102.7° to 103.8°, pulse 124. On the following day the abscesses on the thigh were opened up freely, permitting a thorough emptying and providing for good drainage. The temperature fell to about normal and the patient was rendered generally more comfortable. No change was made either in medicine or general line of treatment. The nervous manifestations and muscular contractions had about ceased, but the patient was exceedingly weak, and the circulation was feeble. Nourishment in considerable amount was insisted upon. On account of the patient's condition and the cause thereof, it was thought he would be benefited by protonuclein. He was given 5 gr. every four hours, with positive beneficial effect. The temperature did not rise above 100° after August 18. The abscess cavities were carefully and systematically dressed, and soon began healing properly.

The patient's appetite in the meanwhile has improved greatly. On the 14th of August he began sitting up. All sedatives having been withdrawn several days previous, and the patient not sleeping well, sulfonal was prescribed as needed for sleeplessness. On the 22nd he was able to walk around the ward with the assistance of a sister, and was taken onto the porch for an airing. From this time on the gain in strength and flesh was rapid. The muscular stiffness and soreness had practically left him. The abscesses on the thigh were tedious in healing, but by September 4 they were sufficiently healed to permit of the patient's leaving the hospital, he returning occasionally to have them dressed.

This is an exceedingly interesting case because of the marked characteristic features, constant pain in the back, back of the

neck and abdominal muscles, difficulty in swallowing, contractions of the facial muscles, and the rigid state of the muscles during the period of time between the muscular contractions. The favorable termination after such a severe siege serves as an illustration that the making of a prognosis is often an uncertain matter.

ANOTHER VICTIM OF DOWIE'S TEACHINGS.

A Chicagoan who is a believer in Dowie sent for one and then for two of his prayer-healers when his wife was in the throes of childbirth. He would not call in a doctor, for to do so would be "an act of unbelief." His sister pleaded with him. The angry neighbors threatened him when they heard his wife's cries of agony, which the stolid prayer-healers listened to unmoved. The husband did not yield until his wife went into convulsions. But it was too late. She was delivered of a dead child and is herself in a critical condition. The doctors say that if medical aid had been given in time the wife would probably be on the road to recovery and her child would be alive by her side. Dowie will say that the child died because "God was angry" at the calling in of a doctor. What does the law have to say on the subject? There is a section of the criminal code which makes it unlawful for any person having the care or custody of any child willfully to cause or permit the life of such child to be endangered. The Attorney General has said that this section did not apply to a parent who let his child die of typhoid fever, because he did not act "willfully"—he thought he was doing what was best for the child. Doubtless the attorney general will say that this Chicago father did not "willfully" kill his child and endanger the life of his wife. Undoubtedly he thought he was doing right. He obeyed the dictates of his conscience. He lived up to his religious creed. But there is point where the exercise of religious liberty becomes either crime or insanity. Occasionally a religi-

ous enthusiast feels it his duty to offer up a child on the altar, as Abraham was about to offer up Isaac. That man is not allowed to run at large, but is sent to an insane asylum. When a conscientious Mormon marries more than one wife his act is called a crime. Religious liberty has its limits, and it must be that this man who is responsible for the death of his child has overstepped them. As he seems to be sincere, probably he ought to be locked up in a madhouse till it is certain he is healed.—Chicago Tribune.

MEDICAL ROSTER ILL. N. G.

The roster of the medical officers of the Illinois National Guard is as follows:

Surgeon General—Colonel Nicholas Senn, Chicago.

Assistant Surgeons General—Lieutenant Colonel C. C. Carter, Rock Island; Lieutenant Colonel Geo. N. Kreider, Springfield; Lieutenant Colonel Charles Adams, Chicago.

Surgeons of First Infantry—Major W. G. Willard, Chicago; Captain Thomas E. Roberts, Chicago; First Lieutenant Charles B. Walls, Chicago; First Lieutenant S. C. Stanton, Chicago; First Lieutenant E. T. White, Chicago.

Surgeons of Second Infantry—Major G. Frank, Lydston, Chicago; Captain Buell S. Rogers, Chicago; First Lieutenant B. M. Linnell, Chicago; First Lieutenant Ira D. Isham, Chicago; First Lieutenant Charles W. Parkes, Chicago.

Surgeons of Third Infantry—Major Henry Richings, Rockford; Lieutenant C. E. Starrett, Elgin; Lieutenant Arthur W. Morse, Joliet.

Surgeons of Fourth Infantry—Major T. C. McCord, Paris; First Lieutenant C. M. Galbraith, Carbondale; First Lieutenant George E. Hilgard, Belleville; First Lieutenant Harlan W. Long, Newton.

Surgeons of Fifth Infantry—Major James L. Bevan, Decatur; Captain E. W. Ames, Canton; First Lieutenant F. S. Songer, Kinmundy.

Surgeons of Sixth Infantry—Major Frank Anthony, Sterling*; Captain C. A. Robbins, Dixon; First Lieutenant C. E. Whitesides, Moline; First Lieutenant A. S. Rannel.

Surgeons of Seventh Infantry—Major T. J. Sullivan, Chicago; Captain G. William Mahoney, Chicago; First Lieutenant Frank P. St. Clair, Chicago.

Surgeons of First Cavalry—Major T. Jay Robeson, Chicago; Captain Jesse Rowe, Monmouth; First Lieutenant Leo Wampold; First Lieutenant Burnett Chipperfield.

Eighth Battalion—Captain A. A. Wesley, Chicago; First Lieutenant E. S. Miller, Chicago.

Artillery Squadron—Captain Alfred C. Cotton.

Naval Militia—Lieutenant Commander Charles B. Wagner.

*Resigned.

FIGHTING THE PLAGUE IN OLD DAYS.—The outbreak of the plague in Portugal and at one point in South America, and the fact that the disease has so far been confined within circumscribed limits, illustrates the progress which has been made in medical science. Two hundred years ago the plague practically ran its own course. Men died by the thousands, and the disease spread rapidly from place to place. The physicians of those days were chiefly busy in protecting themselves from infection. The dress worn by a physician while making a call on a patient afflicted with the dread disease was as follows: The head was covered with a heavy leather helmet, in which two crystals were set, to allow the wearer to see. The birdlike beak was filled with spices and aromatic gums, so that the air, which was inhaled through two nostrils cut in the beak, might be purified. The whole body was covered with a robe of morocco, while the hands were incased in long morocco gauntlets.

Dr. Helen P. Phillips, aged 50 years, a homeopathic practitioner of Chicago, died at San Antonio, Texas, October 16.

The Illinois Medical Journal

PUBLISHED MONTHLY.

Official Organ of the Illinois State Medical Society.

Committee on Publication:

E. W. WEIS, M. D., Chairman, Ottawa.
H. N. MOYER, M. D., Chicago.
G. N. KREIDER, M. D., Springfield.

All communications should be addressed to E. W. WEIS, Secretary, Ottawa, Ill.

All remittances for subscriptions should be sent to Dr. G. N. Kreider, 522 Capitol Ave., Springfield, Ill.

The Society does not assume responsibility for any statements or opinions published in this journal.

Entered at the Postoffice at Springfield, Ill., as second-class matter.

Springfield, Ill., November, 1899.

SECTION TWO.

The chairman of Section 2 is arranging for a clinic and conversazione on Diseases of the Rectum, to be held from 7 to 9 A. M., at one of the hospitals in Springfield, the second day of our meeting. Several prominent specialists have agreed to take part. The committee on arrangements will do their best to provide sufficient material. All members of the Society are invited to participate. Operative cases will be assigned to volunteer operators, and there will be an informal talk on methods of examination and treatment which, it is hoped, will prove of interest. W.

MEDICAL PRACTICE ACT.

The various attacks that have recently been made on the Medical Practice Act should have contained a criticism on the actual condition of public opinion at the time of its passage. It is public opinion that makes law and any law that is not supported by public opinion will not stand. As we understand it, the interpretation of public opinion by the legislature was to the effect that the Mind Healers should have an inning. We, of the medical pro-

fession, of course objected. They have their inning and will have, until public opinion has been changed by the sacrifices that are being daily made in this "Slaughter of the Innocents." It is the physicians duty to assist in making public opinion by giving wide publicity to these failures. Then again it means thorough political organization to such an extent that our requests and demands will be complied with, in eliminating the bad features of this law and substituting therefore, good ones. W.

BLAND'S SOCIETY.

The Illinois Union Medical Association has been organized for protection against the oppressive action of the State Board of Health. Dr. Samuel J. Avery was elected President, and Dr. T. A. Bland, Secretary and Treasurer. This is the outcome of Bland's fight against respectable medicine. As the State Board of Health represents the legitimate practice of medicine in this State, therefore the object of this society is the endeavor to nullify the good that has been accomplished by the better element in the profession since 1877. The Illinois State Medical Society can take unto itself credit for not only the formation of the State Board of Health, but practically of all medical laws that have been enacted. It is astonishing that a society of any kind, of any number, could be organized in this State for the purpose of nullifying laws made for the benefit of the people in protecting them against disease and suffering.

It behooves the physician who has the good of humanity at heart to actively bestir himself, not only in society work, but individually with politics so that he will be of influence on the floor of the legislature when the bills that will be prepared

by the above named Society are presented for consideration. It will require a united profession, to defeat adverse legislation, and there will be no doubt but that concerted action by the vast majority of regular physicians of this State will be able to easily defeat the retrograde work of the I. U. M. A. W.

MEDICAL JOURNALISM.

One of the most common criticisms that has been much used lately, is that we have too many medical journals. It is therefore very pleasing to note that Dr. John Duncan Emmet, editor and proprietor of the American Gynecological and Obstetrical Journal, in a paper read before the American Editors' Association last June, holds out the right hand of fellowship to all of the smaller journals and gives strong encouragement to them. He makes a suggestion, however, that is very good, and that is, that the Medical Journal shall be owned by medical men and not published simply for the profit of the publisher, *but* for the purpose of uplifting the profession as a corporate body. We quote several paragraphs from his paper:

"The *end* of medical journalism, therefore, must be to strive for the corporate interests of the profession, to struggle to obtain its recognition as a corporate force in fact as well as in name, that thus the public well-being in all that pertains to health, of which the profession avowedly stand as the mentors and arbiters, may be best protected and advanced. Nothing less, evidently, than this idea in its broadest scope can fill the end of medical journalism."

"The piping voices of individual physicians cannot command more than the passing, casual attention of the body politic or

social but the united voice of the medical profession would come as an authoritative, irresistible force. 'It would be the decision of the supreme court of science, against which there is no appeal.' W.

WOODBURY VS. EDDY.

Mrs. Josephine Woodbury's suit against Mrs. Mary Baker Eddy, which is now pending in Boston, is developing considerable interest both in the believers and unbelievers of Christian Science. Mrs. Woodbury alleges libel against her, both in the church and the church newspapers, which compare her to the scarlet woman of the seventeenth chapter of Revelation, and that Mrs. Eddy personally added offense by adding much of a nature that injures her reputation. Mrs. Woodbury of course denies that she is such a woman, and has asked in compensation for the damage done to her, the sum of \$150,000. The part of the trial that will interest the people more generally is, that complainant's counsel, a leading member of the Boston bar, proposes to examine the doctrine of Christian Science from beginning to end and to scrutinize closely the career of Mrs. Eddy and the leaders of her church, and to submit its spiritual claims to cold judicial investigation. As this is the first time that this new doctrine has been submitted to the courts, it will prove of great interest to the public to have determined the question if a judge on a bench can skillfully dissect and understand the peculiar conglomeration of sentences and reversed reiterations of the repeating paragraphs of the "Bible Annex." We apprehend that a discerning legal mind will not be influenced while judicially considering the case by the "Can't you see?"

The fact that Mrs. Eddy had transferred all her property, including the jewels and other personal belongings to Mr. Frye, her

private secretary, would indicate in her opinion that property is a matter of a real thing. She evidently is of the opinion that material dollars are a good thing and should be clung to by material hands.

W.

THE PREPARATION OF PAPERS.

If a man reads a paper that is devoid of merit he becomes the thief of the valuable time of every member of the Society. Few men are knowingly unfair in this manner, but many of us err from ignorance of the wishes of our auditors. We do not give them what they want.

It may be stated that, above all things we want to know of therapeutic measures which will aid us in our daily routine of practice. We do not care much about the treatment of diseases we never treat. Our interest is only incidental in the technique of operations we never expect to perform. We do not wish, in our Society, to hear the report of extended bacteriological or other laboratory investigation unless its application to the treatment of ordinary disease is clearly demonstrated. We want chiefly facts, for a wise empiricism is really the truest guide. We are glad to have theories also, but they must be based upon facts and they must deduce a rational, practicable and satisfactory treatment.

Some of us have exceptional opportunity to observe the treatment of certain diseases. Our accumulated experience may be sufficient to warrant the formulation of a theory. Even if this is not attempted the report of a number of similar cases treated in accordance with a definite plan is of itself a fact of great value well worthy of consideration and presentation.

Occasionally we meet a rare case, but one that may occur to any practitioner. Having no experience of our own to rely on, we seek to know the experience of

others. Our text books give too often a brief and unsatisfactory account of these cases. They fail us where we need them most. It becomes necessary to reach the record of societies and the reports published in our medical journals.

In Chicago the medical department of the Newbery Library is, in number of volumes, the second largest in the United States while in prompt availability of its resources up to the latest accessions, it is second to no library either in this country or in Europe. It may interest members of our Society to know that Dr. Carl H. von Klein, of 243 East Erie street, is prepared to look up these matters at reasonable rates. In case more extended research is desired it may be remembered that the Surgeon General's Library at Washington, while inferior in number of volumes to the libraries of Paris and St. Petersburg, contains the best collection of medical journalistic literature in the world. Mr. E. A. Tibbetts, of the Surgeon General's Library, makes translations and abridgements at forty to fifty cents per type written page of about 250 words. He is prepared to translate by special arrangement from the Chinese, Japanese, Russian and Arabic languages. Dr. Geo. J. Lochboehler, of 55 K street N. W., makes abstracts for medical men at an expense of 75 cents to \$1.00 per hour.

Books from this library may be secured and kept for two weeks if the expressage is paid both ways and a deposit of \$50.00 is posted. They may also be secured through any public library in the state simply by paying the expressage provided the directors or trustees of the library will guarantee their safe return conformably with the rules.

With these means of research at hand the preparation of papers is facilitated, and their value is greatly increased. D. L.

Correspondence.

The State Board of Health as an adjunct in the machinery of the State Medical Society, deserves a great deal of consideration and most assuredly in its present condition and mode of management needs to be revolutionized. As I stand at this end of the controversy I confess I hardly know what to say or what not to say, but within my recollection—and that embraces the whole time of the Board,—its fitness to subserve the interests of the Society, as was and is intended, has not been discussed before the Society by any one who had any experience in the Board's organization and adaptability for the work, nor has the Board ever made a report to the Society. So in some ways this is an entirely new subject to be brought to the consideration of the membership, for reasons before mentioned.

For many years after the laws creating a Board of Health and regulating the practice of medicine was enacted, the Board and its functions were regarded as a useless luxury by a great proportion of the people and the average legislature. That it should be required to work for nothing during that stage is not surprising—and when I say that there is no means provided by law for the payment of members of the Board for any services, it will surprise many. The law creating the Board says:

Section 11. "They shall elect a secretary who is not a member of the Board, who shall perform the duties prescribed by the Board and this act, and the one regulating the practice of medicine, and shall receive a salary fixed by the Board and his traveling and other expenses incurred in the performance of his official duties. The members of the Board shall receive no compensation for their services, but their traveling and other expenses, while employed on business of the Board, shall be paid. The president of the Board shall quarterly certify the amount due the secretary, and on presentation of his certificate the auditor of the state shall draw his warrant on the treasurer for the amount."

The Board has, however, devised a way by which under some circumstances, they draw a \$10.00 per diem, but I was advised by my own attorney and the attorney general, that it was unlawful and would not bear investigation. I do not record this as a secret inimical to the Board, but to show that some lawful means should be provided for the payment of the members of the Board for services that *now* are regarded by the people and the legislature as no longer a luxury, but as a necessity. This non-payment of the Board has lead to the members doing as little as they could and remaining in session the shortest time possible—no longer sometimes than just long enough to hear the *report* and *suggestions* of the secretary in regard to work past and prospective, hence the secretary being a paid officer of the Board, does all the work practically, and he not a member of the Board. I do not mean that anything adverse has ever been enacted by this process, but fellow members, is this a safe organization of the machinery that is to transact your very important behests?

Suppose with this unphilosophical machine you allow all its members with the secretary, to be non-affiliating with the State Society. I ask how can you expect to protect the interests of the health and life of the citizens you have so sacredly in your keeping? The law regulating the practice of medicine, past and present, declares that the Board shall examine applicants to practice medicine in the State, yet the secretary and the office clerks and chosen monitors do the examining in the absence of the Board, only that the examination begins on a day when the Board is supposed to be in session, the members of the Board preparing the questions before and grading them at their homes afterwards. I do not mention this in finding fault with the Board, but to show how it *would* be conducted by an exclusive examining board if one were created, for that is the way it would do its work, especially if its members had to work for nothing, as they do at present.

I hope I may be pardoned for making a personal reference to illustrate a point that bears on the matter of responsibility

for no pay. Last winter while serving out the unexpired term of Dr. French on the Board, a case of smallpox occurred in a railroad camp of two hundred people just outside the city limits of East St. Louis. I was called on by the authorities to assume responsibility in the case. I called on the sheriff of St. Clair county for sufficient men to quarantine the camp for such time as would insure safety, which I held for fourteen days. There were two railroads running through the camps which required complicated guard duty. I gave it five days of my time and great anxiety besides, for very well was I conscious that there might occur a clash of authority and some one get hurt, and as a result I might be involved in litigation, the rest of my life on a charge that I might have exceeded my authority, commanding a quarantine so rigorously, yet to be efficient, it must be so. For this I was not allowed pay for other than expenses. Yet, to conduct such affairs in such a way for such purposes is a matter of great responsibility and shall not be so lightly considered.

My experience in such matters leads me to feel that the function of the State Board of Health is an important one, vested with great responsibilities, second to none in the State, and that the State Board is no longer a luxury and should be adequately paid.

This brings to mind the question of the creation of another board. A separate examining board as was contemplated in the recent law regulating the practice of medicine, as was originally introduced, and as I understand it, is hoped will be secured in the near future. Why create another board to work for nothing, when the examining will all be done, as now, by the secretary of *that Board* and his clerks, as is now done by the present Board. That would necessitate a secretary with a salary extra, and clerks additional. Of course, the member of such Board would not stay in session long enough to examine the applicants no more than now, for nothing. If you have a member worthy to be a doctor, he must have a practice and he is not going to stay away from it days for nothing. Why not better salary a member or members of the present Board of

Health so they can give time enough to conduct the examinations? One of the members with the machinery of the Board of Health office can conduct the examinations. Other members with the secretary then could attend to sanitation and leave the president—with a salary—and other attaches of the health office to conduct the examinations. The present Board with one salaried member could do all the extra that the additional examinations would require better than a new Board of seven could without compensation. Better talent would be attainable for certain it is, no first-rate doctor is going now to serve on a Board very long and incur risks and responsibilities without adequate compensation. We should advocate the enactment of a law for compensation for arduous and responsible labors before we create another place for our best and most experienced members to work gratis for the State.

Personally, I am in favor of a State health officer, who shall be president of the Board, salaried enough to justify him to spend his entire time in the study and practical application of Etiology, State Medicine, Hygiene and Epidemiology, who shall by and with the assistance of the secretary and the associate members, execute the laws of the Board and those regulating the practice of medicine, the associate members to be distributed in such a way over the State that their assistant services may be most available in cases of emergency at the various important points in the State, and that a *per diem* compensation be expressly provided by formal enactment for such services as he may render in this capacity and other service as a member of the Board.

Such a Board so paid can attend to all that is required in sanitary matters and the work of examination of applicants to practice medicine in the State, and will be less complicated and confusing and more efficient than two Boards, especially if both are to be unpaid for responsible and useful services. I have thus called attention to the present Board plan, not that I have any dislike for the Board or its members, but to show that there is as

much inefficiency and imperfection in the present Board plan as there is in the laws of the Board or the one regulating the practice, and to suggest that we do not need another Board, but the law creating this one, changed, revised, or so amended as to increase its efficiency. The only specific charge, the present work of the Board, and one that does not lay alone against the present Board, is that of not enforcing the law relative to the collection of vital statistics. For many years before any of the present members were chosen, the reports of births and deaths have not been required of the physicians and accoucheurs, when the law creating the Board specifically says they shall so report. Yet, the Board whose duty it is to enforce this act has knowingly allowed such neglect to be perpetuated from year to year, and too, in the face of the plainest law written.

I have personally and extensively investigated this matter among the physicians and find they are not averse to reporting if some reasonable change were made in the plan—a change the Board has ample power to make—and when the physicians are advised that they enjoy privileges and immunities under the laws that compensate them for the little trouble the reporting may be made to be, they say they are entirely willing to make the reports. I am sure that under favorable circumstances they ought and will report, and that the Board ought to facilitate and enforce the method. Vital statistics are of vast importance more than I can now discuss.

Now, I have thus written, not for the purpose of seriously criticising any one or anybody, but to call the attention of the membership of the State Society to these matters, so that when they are called on in the annual session to instruct the Legislative Committee and the State Board, they, the members, will not then just have begun to think of the questions.

The journalizing of the transactions is the only condition that would allow of such suggestions.

A. C. Corr.

Carlinville.

SCIENCE AND POLITICS.

Mr. Editor: In response to your request for a communication on some subject of general interest I would say that it has sometimes seemed that the development of the State Society was not as symmetrical as it might be. A little thought as to the objects and ideals such an organization should entertain may be of profit.

The effort the society is making to get nearer the individual physician and his local society is very desirable. In Illinois one source of weakness seems to be the lack of county societies. The most telling society work is accomplished in the local societies, and yet many counties in Illinois are without a medical organization of any kind, although there is no county which has not a sufficient number of physicians to conduct a live medical society.

At the request of your treasurer, I have been interviewing physicians in my locality as to why they did not belong to the State organization. The most common answer is, that they see no benefit to be derived which is equivalent to the outlay of time and money required to attend. We should strive to so organize the work of the State Society that they will feel that they get value received. To accomplish this, we must infuse into it some element which the most isolated practitioner will feel is of value to him. No man will attend the meeting or in any other way take an interest in a thing which he does not feel is of some value to him.

Any State or National Medical organization should have four chief lines of work. First, the Scientific; Second, the Humanitarian-clinical; Third, the Social; and Fourth, the Political. The second and third of these lines have been very thoroughly cultivated in our State Society. We cannot say so much of the first and last.

This Society should take up, as an organization, scientific work more energetically and seriously. There are many men of scientific attainment in this State who, with a little encouragement, could greatly increase the results of their work.

This Society, by fostering such work, could keep itself more in touch with those who are pursuing scientific lines. Such men have not received sufficient assistance at the hands of the State Society. Money aid could justly be given many scientific enterprises. To say the least, we should use every means to have all scientific advances made within this state, first reported through our State Society. It would often be appropriate for the Society to vote substantial assistance to a man presenting new and original matter which has required long and expensive research. We should arouse such a feeling of loyalty in our State profession that it would be considered almost a professional misdemeanor to present new and original matter in societies and journals outside of our own State. Our society must offer inducements before such a condition of loyalty can be brought about.

The presentations in the past have been far too miscellaneous and haphazard. The Society should adopt some means of planning from year to year scientific work to be pursued. It should come into closer touch with individual, private and State institutions and laboratories.

Large numbers of good clinical and humanitarian papers are presented each year and the social features are all that could be desired. In fact, the social side of some meetings has sadly interfered with the work of the sections.

The Fourth division of proper work for the Society and one which needs stimulation is the Political. The profession in the past has assumed that it was neither dignified nor proper for physicians, either personally or as an organization, to take part in political matters. The result is that a considerable proportion of our medical offices are filled by non-affiliating and unethical men. There is no way in which our medical organizations can do a greater amount of good than by entering practical politics to the degree of controlling all medical appointments. We have the power, if we will use it, to require all political medical appointees to first receive

the endorsement of their medical society, no matter to what party they belong. City societies should control city appointments; county societies should control county appointments, and the State societies should control state appointments. The practical way in which to accomplish this is for the society to send in the names of one or more candidates when an appointment is to be made and then insist in positive terms that the appointee be selected from their candidates. This will make it incumbent on the society to select men fitted for the place and it will be notice that no man who does not have the respect and endorsement of his colleagues need apply.

How many of the appointees of the State of Illinois in medical offices today could receive the endorsement of the State Society? Undoubtedly there are some who could not.

These two very opposite fields of work in the State Society should be more encouraged and great practical good will result to the society and to the communities of the State. Men who now feel that there is nothing to interest them will find that they cannot afford to be out of the society. We will become a more scientific organization and at the same time when we approach the legislature with measures which we know to be for the best interests of the people, we will not be snubbed as is now often the case.

Politicians respect nothing but political force. We must cultivate that before the rights of the people from a medical standpoint can be secured.

Carl E. Black.
Jacksonville.

DOCTORS ARE SHORT LIVED.—An insurance company estimates that forty-two out of one hundred and sixty clergymen live to age of 70 years. Forty farmers reach that age. Thirty-four teachers, and lowest on the list but twenty-four doctors attain the limit prescribed by the psalmist. Preachers lead temperate lives, have a careful system in managing their work and are not subject to the strains which beset the other professions.

EXECUTIVE COMMITTEE MEETING.

The Executive Committee of the Illinois State Medical Society met at the office of Dr. George F. Butler, 907-103 State street, Chicago, on October 10, 1899, at 1:30 P. M.

There were present: Dr. Harold N. Moyer, Chicago; Dr. E. W. Weis, Ottawa; Dr. Henry C. Mitchell, Carbondale; Dr. George F. Butler, Chicago; Dr. Denslow Lewis, Chicago.

The meeting was called to order with Dr. Moyer in the chair.

Dr. Moyer: I would suggest that the number of papers on the program be restricted, as the large number that has been crowded into the sessions in former years, has interfered with the discussions. Also to ascertain before the meeting whether each one on the program has a paper and whether he expects to attend.

Dr. Weis: It has been suggested that each essayist send in a synopsis of his paper to be published in the last issue of the Journal prior to the meeting.

Motion.

Dr. Moyer: The Executive Committee is of the opinion that each paper shall be preceded by a synopsis of its contents and that each officer shall be so instructed.

Motion carried.

Dr. Weis: According to the By-Laws, the forthcoming meeting will assemble on the 3rd Tuesday in May, 1900, at 10 o'clock A. M. It has been suggested by Dr. Kreider that something out of the ordinary routine be held on the opening morning, between 9 and 10 o'clock.

Dr. Moyer: This matter should be left to Dr. Kreider; we should approve of it, however.

Dr. Weis: The meeting will be opened then, at 10 o'clock by the President. After this, some minister appointed by the local committee will offer an invocation, to be followed by an address by the mayor of the city. In Springfield, I believe, it has been the custom for the Governor of the State to address the Society. This is to be left to the Committee or Arrange-

ments. It has been the custom for the President to make his address (semi-public) in the evening. This is a jubilee meeting and we must have some jubilee feature.

Dr. Butler: This should come when the most people are there; I would suggest Wednesday evening.

Dr. Mitchell: I would suggest that some one read a history.

Dr. Weis: This would be too much for one man; Drs. Boal, Davis and Andrews have written me making suggestion for this feature.

Dr. Lewis: I think it would be well for the President to include that in his address; also to allow some of the old members and founders of the Society to have something to say.

Dr. Moyer: We must not carry this too far.

Dr. Weis: Would it not be well to leave this to after dinner talk? The President's address will take from half to three-quarters of an hour, and address of the section on State Medicine will take a half hour.

(It was agreed that it would be better to have this feature a part of the talk at the annual dinner; every member in attendance would then be present and these, instead of the public, would be interested in the history and reminiscences of the Society.)

Motion, Dr. Lewis: I would move, that on Tuesday evening we have only the address of the President, and the address to Section 3.

Seconded by Dr. Mitchell. Carried.

Motion, Dr. Lewis: I would move that the old members of the Society speak on its history at the annual dinner.

Dr. Moyer: That should be left to the Committee of Arrangements; this has been the custom of the Society.

Dr. Weis: I would suggest that Dr. Lewis change his motion to the effect that the jubilee portion of the meeting be a feature of the annual dinner.

(Dr. Lewis acted on this suggestion and changed his motion accordingly.)

Seconded by Dr. Mitchell. Carried.

Dr. Weis: Let us hear from Dr. Lewis

in reference to the Wednesday morning proceedings.

Dr. Lewis: My idea is to make Obstetrics a leading topic for the coming year. I think we are prone to introduce subjects and operations that are abstract and not of general interest, and my idea is to make a practical subject a leading one. Aside from this leading topic, I would have a series of operations made with such material as is available, these clinics to begin on Wednesday morning at seven o'clock, and the Committee of Arrangements to furnish as much of the material as possible. It was thought to have these operations take place in small rooms. I should like to be certain that well known men who are present would perform these operations. If there were abundant material we could invite some others to take part. If we could get some man like Senn to give a general surgical clinic, it would prove a great attraction and every one would turn out, in spite of the early hour.

Dr. Weis: I approve of Dr. Lewis' ideas and think they will do much to increase attendance.

Dr. Lewis: Dr. Black and I will act as ushers and send physicians to proper rooms, and there are plenty of men who will act as anesthetizers, etc. This feature would not last later than nine o'clock; if there is plenty of material, we can carry it over to Thursday morning.

Dr. Moyer: This comes entirely outside of the time for the regular sessions, hence does not interfere. We should use this as one of the attractions in issuing the program.

Dr. Weis: I would suggest that we change the time for adjournment from 12 M. to 12:50 P. M., and that the afternoon meeting assemble at 2 o'clock.

(This was agreed upon.)

Dr. Weis: Section 1 will occupy all of first day; Surgical Section all of second, and part of third day, and Dr. Butler's section half of third day.

Dr. Lewis: I would suggest that the number of papers in the Medical and Surgical Sections be restricted to twenty-five,

and those in State Medicine to ten or twelve; also that the history of cases be only referred to. These can appear in full in publication.

Dr. Weis: Would it not be well to fix the price per plate for the annual dinner? (Price agreed upon was \$1.00.)

Dr. Weis: Appointments for sections addresses should be made by Executive Committee.

(This was discussed pro and con, but no one was quite decided at this time and the matter was left open.)

Dr. Lewis: I would suggest a symposium on the subject of Obstetrics, Webster leading and others appointed to discuss.

Dr. Moyer: This is a useful and practical subject, and it is such papers that those attending, wish to listen to.

Dr. Lewis: The work of Section 3 is very important; we should emphasize that.

Motion, Dr. Weis: I would move that the first day be occupied by the Medical Section, the second day and two hours of the third day, by the Surgical Section, and the balance of the time by State Medicine.

Seconded by Dr. Mitchell. Carried.

Dr. Weis: We should not adjourn before six o'clock Thursday evening; this should be a full three days' meeting.

(The meeting of the Executive Committee was adjourned, subject to call.)

Springfield, Ill., Oct. 27, 1899.

A meeting of the committee of arrangements for the next meeting of the Illinois State Medical Society was held at the St. Nicholas Hotel, on Friday evening, October 27th, with the following members in attendance: Dr. E. P. Bartlett, Chairman, and Drs. C. M. Bowcock, J. N. Dixon, B. B. Griffith and L. C. Taylor. Dr. G. N. Kreider, Treasurer of the State Society, was also present by invitation. Upon motion of Dr. J. N. Dixon, the chairman appointed the following committee to select a place for holding the annual meeting and report the same at a called meeting of the committee of arrangements: Drs. J. N. Dixon, B. B. Griffith and L. C. Taylor. After thorough discussion it was decided

to be inexpedient to attempt to hold clinics at the hospitals during the meeting of the State Society. In order to expedite the preparations the following committees were selected: To arrange for its annual banquet, Drs. Dixon, Bowcock and Griffith; on program and advertisements, Drs. Griffith, Bowcock and Kreider; for selection of badges, Drs. Kreider, Bartlett and Griffith. The committee of arrangements also decided to ask the Secretary of the State Society to request from the railroads of the State a rate of one fare for the round trip to all physicians in attendance upon the annual meeting. Gov. Tanner will be invited to deliver the address of welcome.

L. C. Taylor, Secretary.

County and District Societies.

The Morgan County Medical Society held its regular meeting September 14th, with an attendance of about fifteen members.

Dr. H. B. Boone, of Chandlerville, reported a case of "Hypertrophic Biliary Cirrhosis with Chronic Jaundice." This case was of more than ordinary interest because of the fact that its etiology was attributed to heredity, several members of the family having died of liver disease.

Dr. Wm. Maness reported a case of "Hepatic Colic," with frequent recurrences that had been completely relieved of attacks for one year by the administration of chloride of ammonium and bicarbonate of soda.

Dr. Carl E. Black reported an interesting case of persistent obstructive jaundice with great pain for several months. The attacks occurred about once a week. Upon reaching the gall bladder it was found to be normal, excepting that it contained a soft mass of obstructive material just at the opening of the duct. This mass was broken up with the finger through the wall of the duct. The gall bladder was not opened as no evidence of solid calculus could be found either in the bladder or in the duct. The case made rapid improve-

ment and now six weeks after there has been no recurrence of attacks.

Dr. J. W. Hairgrove reported two cases of operation for gall stones.

A very interesting and exhaustive paper on "Ophthalmia Neonatorum" was read by Dr. J. A. Day, of Winchester. It was fully discussed by Drs. Boone, Cole, Milligan, Duncan and Harvey.

Dr. Edward Bowe, of Jacksonville, reported a case of "Lymphoedema and Cancer en cuirasse," following the amputation of the breast for carcinoma. The breast was amputated in October, '98, and early in January, '99, a small nodule appeared near the site of the incision which was rapidly followed by others and they ulcerated, the patient suffered greatly. Beginning near the site of the primary focus of the disease, the skin became thick and tense, spreading rapidly until the chest wall, the upper portion of the arm, shoulder and the region of Morenheims fossa were involved. Disseminated over the infected area were small subcutaneous, carcinomatous nodules, giving the surface of the skin the appearance of a hammered brass shield. The case terminated early in June of sepsis.

The Will County Medical Society at its meeting of September 10th, informally reported several cases and a general discussion of them followed.

Dr. Dougall opened the discussion on the use of Vaccine Tubes. The opinion expressed by those who had used them was that a larger per cent of such vaccinations were failures than by the use of ivory points.

Dr. Cushing reported a case of strychnine poisoning in a child. The child was taking 1-150 gr. every four hours. Age about eight years, and at the end of two days presented typical case of strychnine poisoning. Child was convalescing from an attack of typhoid fever.

Dr. Larned reported a case of belladonna poisoning in an old lady, who had kept a box of the solid extract in the house for a long time. Also a case of acetanilid poisoning in a man who had gotten headache

powders and used them for persistent headache.

Dr. Woodruff reported a case of persistent eye pain of neurasthenic origin. Glasses had been fitted several times and benefitted the patient for a short time each trial, and he had made several trials.

Dr. Rulien reported a case of temperature of 110° in a child eighteen hours old, and he could not assign any cause.

Dr. Wagner reported temperature of 105° for several successive days in thermic fever.

Dr. Bowles reported an unusual case of Obstetrics.

Dr. Peairs reported a case of version in transverse presentation. The case had been attended by two midwives for 36 hours, and the arm alone had been delivered. This case brought out some discussions regarding similar cases as most of them are among the foreign-born people, who employed midwives. Puerperal sepsis was frequently found in such cases and the general employment of midwives was condemned.

At a meeting of October 11th of the Will County Medical Society, Dr. Larned was to present a paper on "Tuberculin Test." He being absent, the subject was informally discussed, which was led by Dr. James Lennon, a veterinary surgeon of Joliet, who was present by invitation. He stated his results of injection in over 100 cattle and found but one that gave the reaction of over three degrees, and also stated that the Massachusetts State Board had ordered killed all animals that presented a reaction of 2 4-7 degrees, while the action of the Illinois State Board requires all cases reported to them that show an increase in temperature from 1 4-7 to 3 degrees.

It was stated that the tuberculin test was the only means of diagnosing the disease in cattle that were apparently healthy, that the cattle are better able to withstand the disease than the human, and that emaciation is not so marked in cattle nor as prominent a symptom as in man. Tuberculin was devised by Koch as a curative

agent, but had proven an agency to assist in diagnosis rather than curative. Health Commissioner Casey stated that very few examinations or tests had been made here since he came into office, but he is satisfied it is a valuable aid in an effort to protect the public against tuberculous milk.

Dr. Henry, of Peotone, stated that he had observed three cases of tuberculosis in one family that used milk from a cow that had been pronounced tubercular by a veterinarian. The physicians present were well satisfied that many lives will be saved by this diagnostic aid. It is intended to further discuss this subject later.

The autumn meeting of the Brainard District Medical Society was held at Lincoln, Ill., October 26, 1899, President S. T. Hurst in the chair. The following program was presented:

Paper: Stone in Urinary Bladder and Pelvis of the Kidneys—George N. Kreider, M. D.

Discussion: S. T. Hurst, M. D.

Report: A Case of Necrosis of the Tibia—Carl E. Black, M. D.

Report of Cases: F. P. Norbury, M. D.

General Discussion: Katherine Miller, Secretary.

BOND COUNTY MEDICAL SOCIETY.

President, Dr. B. F. Coop, Greenville.
Vice-President, Dr. J. A. Black, Pleasant Mound.

Secretary, Dr. C. C. Gordon, Greenville.
Treasurer, Dr. J. S. Poindexter, Mulberry Grove.

Meets September and April.

STEPHENSON COUNTY SOCIETY.

President, J. B. Leitzell, Orangeville.
Secretary, J. F. Fair, Freeport.

FULTON COUNTY SOCIETY.

President, E. W. Regan, Canton.
First Vice-President, S. B. Bennett, Fairview.

Secretary, D. S. Ray, Cuba.
Treasurer, F. M. Harrison, Bryant.
Next meeting Fairview, December 5.

State Board of Health Items.

A resolution was adopted at the last meeting of the Illinois State Board of Health, providing for the recognition of licenses to practice medicine when issued by states whose requirements are equivalent to those of Illinois.

The Illinois State Board of Health has received advices that fifteen cases of small pox exist in Carbondale. From unofficial sources the list is increased to thirty. Ten cases have been reported from Makanda. At Downs, where the diagnosis of thirty cases was disputed, there are six cases, at Marion seven cases and at Herrin four cases. Vaccination and quarantine in each instance have been carried out.

Attorney General Akin recently read an opinion that the State Board of Health under the provision of the Medical Practice Act has full authority to revoke commissions of physicians given under the provisions of the previous act. The Attorney General considers that the present act does not apply simply to the licensing of physicians. The opinion was rendered on a test case instituted in Chicago.

The case of the Illinois State Board of Health vs. the Independent Medical College has been appealed from the Circuit Court of Cook County and will be heard by the Supreme Court next week. As the college made no defense, the Circuit Court rendered a judgment of ouster. Anticipating adverse action, the Independent Medical College has changed its name to the Metropolitan Medical College.

Dr. W. Frank Ross, Champaign, Ill., who was cited to appear before the Illinois State Board of Health to show cause why his license to practice medicine should not be revoked, has secured an injunction against the Board pending a decision by the Supreme Court. The principal charges are as follows: Running a fraudulent institution, selling a diploma and seeking to

obtain money by fraudulent representations.

A special committee of the Illinois State Board of Health, appointed to investigate the advisability of establishing a state institution for the care of consumptives, has made its report to that body and urges that an appropriation of \$200,000 be granted by the legislature for the establishment of a sanatorium. Action has been deferred until the next meeting of the Board. It is stated that the project has the approval of the Governor.

At the first quarterly examinations held by the State Board of Health five physicians were examined and all passed. The following institutions were represented: Barnes Medical College, Beaumont Medical College, Northwestern University Women's Medical School, St. Louis College of Physicians, University of Erlangen. Of "other practitioners" there were fifteen; twelve passed, one withdrew and two failed. They came from the following institutions: American School of Osteopathy, Missouri University of Osteopathy, Northern Institution of Osteopathy, Quincy School of Osteopathy. Eighteen midwives were examined; thirteen passed.

The following decision was rendered by the Appellate Court, State of Illinois, Third District, May term, 1899, by Presiding Justice Wright, from McLean County: "This was an action of debt in the name of the People for the use of the State Board of Health, against appellant to recover a penalty for practicing medicine without having a certificate from the State Board of Health in compliance with the act to regulate the practice of medicine. The trial was by jury and resulted in a verdict and judgment against appellant for \$100 from which he appeals, and for reversal insists the trial court erred in the admission of improper and the rejection of proper evidence, the verdict is against the law and the evidence of the case, the court gave improper instructions to the jury and refused proper instruc-

tions requested by appellant. It appeared from the evidence that appellant kept and maintained an office in the city of Bloomington where he received, examined and treated persons for diseases. He advertised that he had effected marvelous cures of various kinds of diseases, without the use of medicine or surgery by magnetic treatment, and that patients reap rich rewards of his large experience and new methods, and that his charges were \$1 for each treatment or \$5 per week, of seven treatments. It was proved on the trial that appellant had treated one man for disease of the stomach, another for asthma, and a third for sunstroke and consequent ailments, having a contract with the latter for \$15 to be paid in hack hire, and \$15 in money, all of which have been paid but \$2. The method of treatment was by rubbing the parts of the body supposed to be affected. It is first insisted that these facts do not prove that appellant practiced medicine within the meaning of the statute. Section 10 of the act in question declares that any person shall be regarded as practicing medicine, within the meaning of the act, who shall treat, operate on, or prescribe for any physical ailment of another. If to advertise that he had effected marvelous cures, and that patients reap rich rewards of his large experience and new methods, and by means of such advertisement secure the attendance of persons whom he actually treated and operated on does not fall literally within the definition of the statute of what shall be regarded as practicing medicine, then it would be difficult to imagine the legislative intent by such enactment. If to treat or operate upon a person for a physical ailment by rubbing the affected part is not a treatment or operation for a physical ailment, what is it? It seems to us the mere statement of the question demonstrates the absurdity of every opposite position. In *Eastman vs. People*, 71 Ill. App. 236, a case similar to the one we are considering, it was held that where the treatment consisted wholly of rubbing and manipulating the affected parts, with hands and fingers, and by flexing and mov-

ing the limbs of the patient in various ways, the statute was violated, although no medicines or instruments were used. That to treat or operate on does not necessarily imply the use of medicine or instruments, many of the minor operations being effected without the use of instruments by mere pressure, extension and flexion and that medicine is the art of understanding diseases and curing and relieving them when possible, it being that branch of 'sæsaesip jo suipeæu of pæteia qoiaa oisæp' and the act in question is not restricted to any particular methods of remedies, which are almost innumerable, considering what are used and what have been discarded. It is next insisted that appellant was acting under the direction of Dr. Ross, a licensed physician, and that the court erred in its rejection of evidence tending to prove such fact. The evidence upon this point that was offered and to which objection was sustained by the court consisted of the general statement of Dr. Ross that appellant was acting under his direction and that certain symptom blanks were used by appellant in his communications with Dr. Ross. There was no specific evidence offered that such blanks were used, or that Dr. Ross ever gave any directions, in the cases of Wineberg, Reeve and Augustus, the only persons shown by the evidence to have been treated or operated on by appellant, and inasmuch as the rejected evidence was not responsive to the case made by the plaintiff, the objection was properly sustained. It is true that upon the trial the counsel for appellant stated to the court that he expected to show that appellant made use of these blanks and acted as the assistant of Dr. Ross in each of the cases in evidence, but when the blanks themselves are produced, as shown in the abstract of the record, it is apparent they have no reference to any of the cases in evidence. Dr. Ross also testified that the symptom blanks of the three persons were furnished by him, but the absence of the blanks, if they were used and sent to Dr. Ross, is wholly unaccounted for. Much complaint is made of the instructions of

the court to the jury, both of those given by the court and such as were refused. In its instruction the court told the jury in substance, that although the treatment may have been requested and directed by a regular attending physician of the person being treated, yet the person in fact administering the treatment would be guilty of practicing medicine, as an abstract principle such instruction is wrong and vicious and should not be given in any case, but in the case presented there was no evidence admitted to the jury, and no competent evidence offered, that in any of the three instances wherein it was proved that appellant had practiced medicine, he was acting under the direction of a regular attending physician, of the persons who were in fact treated or operated on by appellant, and hence the instruction, although wrong in principle, could not and did not harm appellant. The instructions requested by appellant upon this point were properly refused. Some of the instructions are not otherwise free from criticism, still we think appellant not harmed by them, and the instructions given at his request as fairly stated the law as the evidence justified and his rights demanded, and in view of the whole evidence, no other verdict than the one returned, that of guilty; would have been proper or responsive to the evidence, and in such cases errors of instructions will seldom reverse. Finding no reversible error the judgment of the Circuit Court will be affirmed."

State Items.

Dr. W. W. Coleman has located at Lincoln.

Dr. Allen T. Haight has returned from Europe.

An emergency hospital is projected at Batavia.

Dr. Hudson, of Carlinville, will remove to Moline.

Dr. and Mrs. D. A. K. Steele have returned from Europe.

Dr. Marie Frahm, of Tuscola, has located in Mattoon.

Dr. H. T. Byford and family spent the summer at Crystal Lake.

Dr. Mark C. Brookings, of DuQuoin, has located in Rockford.

Dr. Stafford has succeeded Dr. R. M. Houck in his practice at LaSalle.

Dr. Julia Holmes Smith has been chosen dean of the National Medical College.

Dr. J. T. Montgomery is planning to build an extensive private hospital at Charleston.

Dr. Geo. T. Meacham has been appointed local surgeon of the Wabash Railway at Taylorville.

Dr. W. T. Easley has recently been appointed surgeon of the Jacksonville and St. Louis R. R., at Greenville, Ill.

Dr. V. Barcoft, of Walshville, Ill., will locate in Greenville, Ill., soon, having sold his practice to Dr. Houser of that place.

Drs. Arthur R. Edwards and J. B. Herick are now in Europe. They contemplate remaining a year there, principally in Germany.

Dr. G. Frank Lydston, Chicago, was recently operated on in New York City, for appendicitis. He has gone to Florida to recuperate.

The total number of inmates of the State Charitable Institutions of Illinois on September 30, 1899, was 9,930. Increase during the quarter, 867.

Many cases of typhoid fever are reported at Moline and Rock Island. In the Moline

City Hospital there are sixteen patients suffering from this disease.

The addition to the Springfield hospital and training school has been completed at a cost of \$11,000. It consists of eighteen private rooms and a large surgical ward.

J. W. Curtis, colored, Chicago, has been appointed acting assistant surgeon U. S. A., and ordered to accompany the 48th U. S. V. Inf. Regt. to the Phillipine Islands.

Dr. J. Clarence Webster has returned from abroad, to enter on the duties of his recent appointment to the chair of obstetrics and gynecology in Rush Medical College, Chicago.

Dr. D. R. Brower, who recently returned from Hawaii, lectured the Fellowship Club on the "Commercial Advantages of the Permanent Retention of the Islands by the United States."

Dr. D. C. Jones, for many years resident physician and surgeon of the Soldiers' Home at Leavenworth, Kan., has been appointed surgeon of the new soldiers' home at Danville, Ill.

Mark Twain's delicious satire on Christian Science in the *Cosmopolitan* for October has excited great interest. The accomplished humorist uses a mythical tale of an accident he suffered in Europe to show up the absurdities of the cult.

Our President, Dr. Harold N. Moyer, was elected President of the Mississippi Valley Medical Association at its 25th annual meeting for the ensuing year. The next meeting will be held at Ashville, North Carolina, October 9th to 11th, 1900.

The Aesculapians of the Wabash Valley are evidently very much alive, for note, that Dr. C. B. Fry is mayor of Mattoon, Dr. W. R. Patton is mayor of Charleston, Dr. Z. T. Baum is mayor of Paris, while

Dr. E. O. Laughlin is a member of the council of Paris.

Dr. Chas. E. Hay, who practiced medicine for 40 years at Warsaw, was the father of Hon. John E. Hay, now Secretary of State, and earlier in life private secretary of President Lincoln. Dr. Hay graduated in 1829 at the Transylvania University, Kentucky, and died about 15 years ago.

The late Judge Richard Prendergast made provision in his will for the establishment of a "rest cure home" on his farm near Wheaton. A tract of 150 acres is set aside for this purpose. It is stipulated that the institution shall be under the management of the Sisters of Charity and receive patients of every creed and nationality.

Dr. Adolph Gehrmann has been examining the Chicago sewage to determine the presence of the bacillus enteritidis sporogenis of Klein. He found it practically always present. He, however, does not believe it of great value in determining sewage pollution so far as Chicago is concerned.

Dr. John A. Egan, secretary of the State Board of Health, has personally inspected the lodging houses of Chicago. A State law requires that not more than six persons shall occupy the same room and that 400 cubic feet of space shall be provided for each person.

THE CHRISTIAN SCIENCE SUIT.—The suit brought by Mrs. Josephine Woodbury against Mrs. Mary Baker Eddy, now pending in Boston, is an outbreak of "mortal mind" the development of which will profoundly interest both believers and non-believers in Christian Science. It is likely to prove a much more serious view of the new doctrine than that which was so good-naturedly presented recently by Mark Twain. Before this trial is over he may learn "what did happen to that cat."

WEEDS GOOD TO EAT.—Go out on any farm and see the farmer hoeing away at the weeds that threaten to choke his crop. You may hear him say things that wouldn't sound nice about the weeds.

The dandelion isn't the only weed eaten by people who know what's good to eat. Take wild chicory, the plague of the farmer. It makes one of the finest salads served, piquant, tender and wholesome. Charlock, or wild mustard, is another bane of the farmer. He doesn't know that as a pot herb it can give a soup a delightful flavor. The dockweeds—how annoying the whole family are! Yet the broad leaf variety and the curly leaf are used all over Europe as table vegetables. There's poke-weed, commonest of them all. In France it is cultivated. It takes its place with sage, thyme, parsley, and bay-leaves as a flavoring for soup.

Everybody in America hates a nettle and can't see what use it is. In Scotland, Poland and Germany tender young nettle leaves are used as greens. The Germans boil it with other vegetables to give them a piquant flavor. Purslane is another weed that can be treated the same way.

Most people think milkweed poisonous. It is a medicinal vegetable with a delightful flavor all its own. The young leaves, when they are just in the right condition, are a cross between spinach and asparagus, and in a salad are delicious.

Sorrel, fetticus and chevril are looked on as field pests by ninety-nine out of every hundred farmers. The hundredth one picks the choicest leaves from these weeds and sends them to market, where they find a ready sale for salads to be eaten with game and for flavoring herbs—for herbs they are and not weeds.—*Public Health Journal*.

EPILEPTIC COLONY.—The friends of the proposed bill for the establishment of an epileptic colony will be glad to know that House Bill 202 passed both houses. This bill appropriates \$2,500, to be expended under the supervision of the State Commissioners of Public Charities, for the purpose of defraying the necessary prelimin-

ary expenses of establishing such a colony, the object of which is to secure humane, curative and scientific treatment and care of those afflicted with epilepsy. Under the act the State Commissioners of Public Charities are empowered and directed to select a suitable location for the founding of such a colony, and secure an option on the same. The Board is directed to take into consideration the natural advantages of any proposed location for the purposes of husbandry, drainage for all necessary buildings and improvements, water supply, and such other advantages as may in their judgment be necessary in the establishment of a model epileptic colony. It is made the duty of the Board to have prepared suitable plans and specifications, on the cottage system, for the erection of the necessary buildings, and report all its acts to the Governor not later than thirty days prior to the meeting of the Forty-second General Assembly, together with a proposed act making provision for the control and management of said epileptic colony.

Gov. Wm. H. Bissell, the first Republican Governor of Illinois, in 1837 came to Monroe County as a physician; was elected in 1840 to the legislature, and subsequently studied law and practiced that profession at Belleville, where he became prosecuting attorney for St. Clair County in 1844. He served with distinction as captain in the Second Illinois Volunteers in the Mexican war. In 1839 he was elected to Congress as a Democrat and served till 1845. Later he became a Republican, and as such was elected Governor in 1856. He was re-elected and died in office.

The most striking incident in his career was when he was challenged to a duel by Jefferson Davis. They had indulged in hot words owing to Mr. Bissell's opposition to the Missouri compromise, and Bissell had questioned Mr. Davis' courage. When Bissell, however, as the challenged party, chose "muskets at thirty paces" as the means and method of fighting the duel, the friend of Mr. Davis interfered and the duel was not fought.

DEATHS.

Mrs. Frances Reilly Beck, only daughter of Dr. F. W. Reilly, Assistant Commissioner of Health, Chicago, died suddenly October 11, in her 28th year, of pulmonary embolism. Dr. Reilly has the sympathy of his many friends in the State Medical Society.

H. C. Hubbard, M. D., Bloomington, Ill., September 24.

Rudolph Hanser, M. D., Woodstock, Ill., September 15.

MARRIAGES.

Married at Buffalo, Ill., October 10, 1899, Dr. Tolbert F. Hill, of Athens, and Miss Lettie A. Herrin.

Dr. J. Y. Shamel, of Gibson City, was married to Miss Anita Snyder, of Moweaqua, October 18.

Dr. G. S. Edmonson and Miss Agnes L. Compton, both of Maroa, were married October 12 in Chicago.

The engagement of Dr. William Hesser and Miss Tillie Buehler has been announced. Both reside in Chicago.

Dr. A. F. Kramps, Chicago, was married to Miss Mae Meyer, daughter of Mr. M. C. Meyer, 255 Rush street, Wednesday, October 25.

Letters, each with enclosure, have been received from:

H. Knappenburg, Macomb.
N. H. Henderson, Chicago.
F. M. Crane, Pittsfield,
J. W. Boyles, Clay City.
O. P. Hopping, Havana.
Surgeon Gen. U.S.A., Washington, D.C.
R. E. Starkweather, Chicago.
C. E. Hayward, Cropsey.
J. E. Rhodes, Chicago.
A. C. James, Springfield.
P. C. Thompson, Jacksonville.

L. L. Gregory, Chicago.
W. E. Walsh, Morris.
S. E. Munson, Springfield.
A. D. Taylor, Williamsville.
Z. D. French, Lawrenceville.
J. R. Hobart, Ashmore.
J. M. Wagner, Newman.
W. H. Sparling, Moweaqua.
W. R. Fringer, Rockford.
S. T. Hurst, Greenview.
A. W. Barker, Springfield.
C. V. Champion, Mansfield.
J. W. Turner, Homer.
E. D. Kerr, Brunswick.
G. J. Rivard, Assumption.
F. J. Eberspacher, Pana.
Theodore Thompson, Shelbyville.
F. D. Brutz, Moweaqua.

CHANGE OF ADDRESS.

Vernon, G. H., from Farmingdale.
Cox, G. W., Chicago to Detroit, Mich.
Felt, R. A., from Knoxville to Oconomowoc, Wis.
O'Hara, F. S., Springfield to Buffalo.
Armstrong, L. C., from Taylorville to San Antonio, Tex.
Riggs, R. W., Taylorville to Colorado.
Foreman, L. D., Waverly to Peoria.
Hyde, E. E., to 100 Laflin street, Chicago.
Holden, W. B., from Battle Creek, Mich., to 28, 33d Place, Chicago.
Johnson, P. B., from Norfolk, Neb., to 644 West Harrison street, Chicago.
Jones, H. G., from Van Wert, O., to 42 Laflin street, Chicago.
Kurtz, C. J., from Flint, Mich., to 802 East 47th street, Chicago.
McMurray, O. M., from 322 South Wood street, to 1355 Wabash ave., Chicago.
Sherwood, F. R., from 70 East Madison to 100 State street, Chicago.
Rigg, Virginia C., from Springfield to New York City.
Wendlandt, G., Springfield to Wis.
Wright, W. K., from Mt. Auburn to Taylorville.
Windsor, John A., from Macon to Mt. Auburn.

Kros, M. L., from Virginia to Peoria.
Dueringer, H. W., from Champaign to Elgin.

Chittum, Jno. H., from Oakland to Wappelo, Ia.

Akins, W. T., from 1122 Southport avenue to 1042 Addison street, Chicago.

Allen, Wm. G., from Mercy hospital to 1427 Roscoe street, Chicago.

Bailey, E. Stillman, from 3034 Michigan avenue to 711 Marshall Field building, Chicago.

Bonnar, Wm., from 240 Wabash avenue to 280 State street, Chicago.

Boomer, Paul C., from 238 31st street to 3121 Indiana avenue, Chicago.

Brower, Daniel R., from 34 Washington street to 597 Jackson Blv., Chicago.

Burnard, H. W., from 9139 Commercial avenue to 9215 Commercial avenue, Chicago.

Butler, G. F., from 103 State street to 794 Adams street, Chicago.

Allen, Jas. F., to Warrensburg, Ill.

Axline, Clarence E., to Oconee, Ill.

Barr, Wm. A., to 100 State street, Chicago.

Bouton, Wm. C., to Waukegan, Ill.

Brant, Isaac L., to Tower Hill, Ill.

Brill, Jno. A., to 428 Michigan avenue, Chicago.

Crebs, Berry S., to Carmi, Ill.

Cristion, H. B. F., to 324 Dearborn street, Chicago, Ill.

David, Jno. C., to Sandwich, Ill.

Ferguson, Alex H., from 100 State street to 2400 Dearborn street, Chicago.

Gause, Amos W., to Centralia, Ill.

Hingston, Jas. W., to 92 State street, Chicago.

Holton, Noble, to Peoria, Ill.

Howes, Caroline, to Bloomington, Ill.

Miller, Chas. A., to Mackinaw, Ill.

Pickard, Wm. S., to Maywood, Ill.

Smith, H. II., to Joliet, Ill.

Johnson, Benj. F., to Pontiac, Ill.

Byrnes, Peter, from 1386 Polk street to St. Elizabeth hospital, Chicago.

Coates, Wm. E., jr., from 655 West 12th street to 2231 West Congress street, Chicago.

Cook, Jno. C., from 47th and Kenwood avenue to 5708 Rosalie Court, Chicago.

Duncan, David, from 69 State street, Chicago, to Peoria.

Duncan, Helen M., from Chicago to Jacksonville.

Foote, Wm. K., from 34 Washington street, Chicago, to Joliet.

Fridus, Samuel L., from Maywood to Ashland Blv. and Taylor street, Chicago.

Galloway, D. H., from 20 39th street to 200 Oakwood Blv., Chicago.

Hall, Jesse T., from 218 East 55th street to 100 State street, Chicago.

Halstead, A. E., from La Grange to 2421 Dearborn street, Chicago.

Hemsteger, J. A., from 255 Oakwood Blv. to 257 Oakwood Blv., Chicago.

Herrick, Jas. B., 103 State street to 751 Warren avenue, Chicago.

Hoadley, Albert E., from 34 Washington street to 683 Washington Blv., Chicago.

Humiston, Chas. from Cook County hospital to Austin.

Holden, W. B., from Battle Creek, Mich., to 28 33d Place, Chicago.

Jones, Leslie W., from 353 Marshfield avenue, Chicago, to Belvidere.

Kuz, Sylvan, from 504 Cleveland avenue to 420 Center street, Chicago.

Lewis, Henry F., Tacoma Bldg. to 4425 Lake avenue, Chicago.

Marshall, W. Scott, from Chicago to Centralia.

Martin, Albert R., from 100 State street to 732 North Hayne avenue, Chicago.

McLean, John, from 537 West Lake street to 567 West Lake street, Chicago.

McMichael, L. D., from 1021 Masonic Temple to 3400 Prairie avenue, Chicago.

Miller, De Laskie, from 56 Astor street to 110 Astor street, Chicago.

Miller, Russell B., from 140 Oakwood Blv. to 170 Oakwood Blv., Chicago.

Paulin, J. F., from corner Noble and Erie streets to 451 Milwaukee avenue, Chicago.

Roth, J. H., from 547 to 555 Blue Island avenue, Chicago.

Santee, Harris E., from 1238 West Lake street to 770 Warren avenue, Chicago.

Sherwood, F. R., from 701 E. Madison street to 100 State street, Chicago.

Thomas, Homer M., from 34 Washington street to 4414 Ellis avenue, Chicago.

Tilotson, H. John, from 475 Ogden avenue, Chicago, to 610 Olive street, St. Louis, Mo.

Waggoner, M. R., jr., from Chicago to DeWitt, Ia.

Whalen, C. J., from 225 Dearborn avenue to Luzerne hotel, Chicago.

Bartz, N. B., from Lamont to 214 State street, Chicago.

Francis, C. H., from Lake Forest to 531 Burling street, Chicago.

White, Solon C., from Sandwich to Kansas City, Mo.

Peck, Wesley H., from Wheaton.

Carel, A. N., from Abingdon to Bloomington.

Marshall, Jas. A., from Pontiac.

Shallenberger, J. N., from Carlinville to 145 Oakwood Blv., Chicago.

Allen, Albert, from Havana.

Burr, Jno. Rolla, from Nunda to Cameron.

Chewning, Jesse, from Bloomington to Peoria.

Schreiber, Albert, from Oakford to 700 Superior street, Chicago.

Reid, David, from Murrayville to Jacksonville.

Bruener, J. R., from Gays to Moweaqua.

Fouser, Albert R., from Rochelle to Joliet.

Botts, Alvers T., from Hanna City to Warrensburg.

Welsch, Jno. A., from Swanwich to Keyesport.

Weems, C. M., from New Canton to Griggsville.

Turner, F. A., from Magnolia to Sandwich.

Beattie, Andrew B., from Chester.

First, Frank H., from Rock Island to Upper Alton.

Cochran, C. C., from Hamilton to Jacksonville.

Walters, C. H., from Springfield to Harristown.

Wendlant, Gustave, from Springfield to Wisconsin.

Kingsley, Virgil, to Carthage.

McClanahan, Jas. M., from Kirkwood to Alexis.

Bozarth, F. E., from Brownsville to Herald.

Brannon, L., from Manhattan to Joliet.

Adams, W. W., to Atkinson, Ill.

Cassidy, W. W., from Wabasha, Minn., to 740 Jackson Blv., Chicago.

Dowdall, W. T., from 2140 Wabash to 7100 South Chicago avenue, Chicago.

Grier, M. J., from Waukegan to Philadelphia, Pa.

Martin, E. E., from Gambrie, Ia., to 248 South Lincoln street, Chicago.

Osborne, C. F., from Creamery, Ia., to 222 Winchester avenue, Chicago.

Prentice, G. L., from Pleasantville, Ia., to 528 Washington Blv., Chicago.

Parsons, S. T., from Breda, Ia., to 580 West Madison street, Chicago.

Sholter, T. W., from Winona, Minn., to 740 Jackson Blv., Chicago.

Waiss, A. S., from 2722 Indiana to 2691 North Hermitage street, Chicago.

Taylor, A. D., from Klondyke to Williamsville.

Payne, A. D., Chicago to Gainesville, Texas.

Steen, E. R., Chicago to Joliet.

Stogel, J. B., Chicago to Hammond, Ind.

Dr. W. F. Bensfield, an aged practitioner of Atwood, Douglas county, has been arrested, charged with performing a criminal operation on Mrs. Ida Ellis.

A Dr. Paine recently invited the members of the New York Medical Club to dinner in the following more or less classical style. "Doctores, Ducem nex Mundi nitu Panes; triticum at ait. Expecto meta fumen to te & eta beta pi. Super at ten to uno. Dux, hamor clam pati; sum parates, ices, jam, etc. Sideror hoc. Festo resonam Flores Sole."

ILLINOIS Medical Journal

The Official Organ
of the
State Medical Society



A Monthly Bulletin
Edited by the
Publication Committee

Printed by
THE ILLINOIS STATE JOURNAL COMPANY.

Entered in the Springfield Postoffice as Second-Class Matter.

Volume XLIX.
New Series, Vol. I.
Number 6.

Springfield, Ill., December, 1899.

{ Subscription, \$3 a Year.
Single Copies, 25 Cents.

TABLE OF CONTENTS.

ORIGINAL ARTICLES.

Use of Schleichs Mixture for General Anæsthesia in 110 Operations in the Nose and Throat—W. K. McLaughlin, M. D., Jacksonville.	243
Adipose Tissue a Etiologic Factor in Hernia—A. H. Ferguson, M. D., Chicago.....	245
Surgical Treatment of Hemorrhage from Gastric Ulcers, with Reports of Two Cases and Animal Experiments, by E. Wylls Andrews, A. M., M. D., and Daniel N. Eisendrath, A. M., M. D., Chicago.....	254
The Influence of Biological Research on Surgery and Medicine, W. J. Fernald, M. D., Rantoul.....	264
Some Considerations of Epilepsy—Daniel R. Brower, A. M., M. D., L. L. D., Chicago	270

EDITORIALS.

Caution! Caution!.....	272
Street Restaurants.....	273
Shall History be Repeated.....	273
Organize, Unite, Centralize.....	274

CORRESPONDENCE.

Letter of J. W. Pettit, M. D., Chairman....	283
Letter of J. A. Egan, M. D., Secretary....	283
Letter from Practitioner in Coles County..	285

Notices of Springfield Meeting.....	285
State Items.....	286
Marriages, Deaths, Changes of Address....	287
Officers of the Society.....	242

COUNTY AND DISTRICT SOCIETIES.

Military Tract Medical Society.....	275
McLean County Medical Society.....	275
Chicago Gynecological Society.....	275
Bureau County Medical Society.....	275
Brainerd District Medical Society.....	275
Central Illinois District Medical Society...	275
Maconpin County Medical Society.....	276
Æsculapian Society of the Wabash Valley.	277
Will County Medical Society.....	279
Springfield Medical Club.....	280
Peoria Medical Society.....	283



Next Annual Meeting —

Will be held in **Springfield** the

Third Tuesday of May

AND TWO SUCCEEDING DAYS (Viz: 15th, 16th and 17th), 1900.

Officers and Committees for the Year 1899-1900.

OFFICERS:

HAROLD N. MOYER, Chicago.....PRESIDENT
 J. T. McANALLY, CarbondaleFIRST VICE PRESIDENT
 WELLER VAN-HOOK, Chicago.....SECOND VICE PRESIDENT
 EDMUND W. WEIS, OttawaPERMANENT SECRETARY
 B. B. GRIFFITH, SpringfieldASSISTANT SECRETARY
 GEORGE N. KREIDER, Springfield.....TREASURER

SECTION ONE.

PRACTICE OF MEDICINE, MEDICAL
 SPECIALTIES, MATERIA MEDICA AND
 THERAPEUTICS.

H. C. Mitchell.....Chairman
 Carbondale.
 Charles D. CenterSecretary
 Quincy.

SECTION TWO.

SURGERY, SURGICAL SPECIALTIES,
 AND OBSTETRICS.

Denslow Lewis.....Chairman
 5100 Madison Ave., Chicago.
 C. E. Black.....Secretary
 Jacksonville.

SECTION THREE.

ETIOLOGY, STATE MEDICINE AND MED-
 ICAL JURISPRUDENCE.

George F. Butler.....Chairman
 Chicago.
 W. J. Fernald.....Secretary
 Rantoul.

COMMITTEE ON MEDICAL LEGISLATION.

J. W. Pettit, Ottawa, Chairman.
 Joseph Robbins, Quincy.
 W. H. Wilder, Chicago.
 J. A. Egan, Springfield.
 The President, Ex-Officio.

COMMITTEE ON NECROLOGY AND BIOGRAPHY.

John H. Hollister, Chicago.
 O. B. Will, Peoria.
 E. J. Brown, Decatur.

COMMITTEE ON MEDICAL SOCIETIES.

C. W. Hall, Kewanee.
 J. A. Baughman, Neoga.
 J. O. DeCourcy, East St. Louis.

COMMITTEE ON REGISTRATION. (Ex-Officio.)

George N. Kreider, Springfield.
 B. B. Griffith, Springfield.

EXECUTIVE COMMITTEE. (Ex-Officio.)

H. N. Moyer, Chicago.
 Edmund W. Weis, Ottawa.
 E. P. Bartlett, Springfield.
 H. C. Mitchell, Carbondale.
 Denslow Lewis, Chicago.
 Geo. F. Butler, Chicago.

COMMITTEE ON PUBLICATION.

Edmund W. Weis, Ottawa.
 H. N. Moyer, Chicago.
 George N. Kreider, Springfield.

COMMITTEE ON ARRANGEMENTS. Springfield.

E. P. Bartlett, Chairman, Sp'g'd.
 J. N. Dixon, Springfield.
 L. C. Taylor, Springfield.
 C. M. Bowcock, Springfield.
 B. B. Griffith, Springfield.

COMMITTEE ON SOCIETY HISTORY.

N. S. Davis, Chicago.
 Robert Boal, Lacon.
 DeLaskie Miller, Chicago.
 E. Ingals, Chicago.
 J. H. Hollister, Chicago.
 Edmund Andrews, Chicago
 T. D. Fitch, Chicago.
 L. G. Thompson, Lacon.

JUDICIAL COUNCIL.

C. C. Hunt, Dixon.
 Hugh T. Patrick, Chicago.
 C. DuHadway, Jerseyville.
 J. F. Percy, Galesburg.
 James L. Reat, Tuscola.
 C. E. Black, Jacksonville.
 E. P. Cook, Mendota.
 D. W. Graham, Chicago.
 O. B. Will, Peoria.

The Illinois Medical Journal.

The Official Organ of The Illinois State Medical Society.

VOL. XLIX.
New Series, Vol. I.
No. 6.

Springfield, Ill., December, 1899.

{ SUBSCRIPTION
\$3.00 A YEAR.

THE USE OF SCHLEICH'S MIXTURE FOR GENERAL ANÆSTHESIA, IN ONE HUNDRED AND TEN OPERATIONS IN THE NOSE AND THROAT.*

BY W. K. M'LAUGHLIN, M. D., JACKSONVILLE.

Schleich, of Berlin, in 1895, gave the results of his experiments with a new mixture for general anæsthesia.

These mixtures were composed of ether, chloroform and petroleic ether (benzine).

Mixture No. 1. Boiling point, 100.4° F. Chloroform, 45 c.c.; petroleic ether, 15 c.c.; sulphuric ether, 180 c.c.

Mixture No. 2. Boiling point, 104° F. Chloroform, 45 c.c.; petroleic ether, 15 c.c.; sulphuric ether, 150 c.c.

Mixture No. 3. Boiling point, 107.6° F. Chloroform, 30 c.c.; petroleic ether, 15 c.c.; sulphuric ether, 80 c.c.

These formulæ are by volume, not by weight. Schleich's theory is that an anæsthetic should have a boiling point about equal to the temperature of the body; he

moreover states that the boiling point can be changed to any degree, and that the mixture will continue to boil without decomposition as long as its temperature remains near the determined boiling point; that mixtures of ether, with a boiling point near the temperature of the body, absorbed during respiration, will boil when expired with the air of the lungs. Thus Mixture No. 1 with a boiling point nearest the temperature of the body, is most evanescent, and is suggested for very short operations. Mixtures Nos. 2 and 3 for those more prolonged.

By an examination of the following tables, it will be seen that this method of anæsthesia is very rapid. Though no attention was paid to abstinence from food, prior to the operation, there was little or no disturbance of the stomach, and, in all the cases operated upon, no bronchitis or broncho-pneumonia followed. A rapid return to consciousness and control of mental faculties ensued, which is especially desirable in operations on the nose and throat; where we are so apt to meet with sudden and copious hæmorrhage.

*Read at the 49th Annual Meeting, Cairo, May 18, 1899.

REPORT OF THE USE OF SCHLEICH'S MIXTURE FOR ANÆSTHESIA IN NOSE AND THROAT.

No.	Date 1898-99.	Sex.	Age.	Operated on for	Time required.	Time under anæsthesia.	No. of Solution.	Amount of Solution.	Emesis.	Remarks.
1	Nov. 11	M	9	Hyp. Tonsil.....	15 min.	30 min.	1	4 drach.	No.	Ether used
2	" 14	F	10	Adenoids	10	5	2	5	No.	"
3	" 16	M	14	"	7	4	2	4	No.	"
4	" 16	M	14	"	10	4	2	4	No.	"
5	" 17	M	13	"	5	4	2	3	No.	"
6	" 17	M	13	"	5	4	2	2½	No.	"
7	" 17	M	12	"	5	4	2	3	No.	"
8	" 18	M	14	"	4	3	2	3	No.	"
9	" 18	M	11	"	11	4	2	5½	Yes.	"
10	" 21	M	14	"	6	4	2	4	No.	5 times, gag removed too soon..
11	" 22	M	14	Ad. & Hyp. Ton..	4	4	2	2½	No.	"
12	" 23	M	11	Adenoids	3½	3½	2	1½	No.	"
13	" 23	M	10	"	7	5	2	2	Yes.	Three times
14	" 23	F	9	"	3	3	2	2	No.	"
15	" 23	F	8	"	6	3	2	2 & 20 M	No.	"
16	" 23	F	13	"	5	3	2	2	No.	"
17	" 28	M	12	"	10	3	2	4½	Yes.	New anæsthetic M
18	" 28	M	14	"	12	3	2	4½	Yes.	"
19	" 28	M	14	"	6	3	2	2½	Yes.	"
20	" 28	M	6	Ad. & Hyp. Ton..	5	3	2	2½	Yes.	"
21	" 29	F	11	"	5	6	2	2½	Yes.	"
22	" 29	F	9	"	5	6	2	3	Yes.	"
23	" 29	F	15	Adenoids	7	4	2	3	No.	"
24	" 30	M	13	Ad. & Hyp. Ton..	10	6	2	5	Yes.	Vomited once
25	" 30	M	14	Adenoids	9	3	2	4½	Yes.	Several times
26	" 30	M	6	Ad. & Hyp. Ton..	5	3	2	4	No.	"
27	" 30	F	10	"	4	5	2	3	No.	"

Report of the Use of Schleich's Mixture for Anæsthesia in Nose and Throat—Continued.

No.	Date 1898-99.	Sex.	Age.	Operated on for	Time required.	Time under anæsth.	No. of Solution.	Amount of Solution.	Emesis.	Remarks.
28	Dec. 2	F	9	Adenoids	4½ min.	3 min.	3	drach.	No.	.....
29	" 3	F	10	"	8 " "	10 " "	3	½ "	Yes.	Once
30	" 3	F	16	"	5½ " "	" "	4	" "	No.	.....
31	" 6	F	10	"	7 " "	" "	4	" "	Yes.	Two times
32	" 7	F	11	Hyp. Ton.	3½ " "	" "	3	" "	Yes.	.....
33	" 7	F	10	Adenoids	5 " "	" "	4	" "	Yes.	Once
34	" 8	F	14	"	4 " "	" "	3	½ "	No.	.....
35	" 8	F	17	"	3½ " "	" "	3	½ "	No.	.....
36	" 8	F	9	"	4 " "	" "	3	½ "	No.	.....
37	" 8	F	10	"	3 " "	" "	3	" "	Yes.	Three times
38	" 9	M	11	Ad. & Hyp. Ton..	4½ " "	3 " "	3	" "	No.	.....
39	" 9	M	14	Adenoids	4½ " "	3½ " "	2	½ "	Yes.	Two times
40	" 10	F	15	Ad. & Hyp. Ton..	3 " "	3 " "	4	" "	No.	.....
41	" 10	F	15	Hyp. Ton.	4 " "	3 " "	3	" "	No.	.....
42	" 12	F	14	Adenoids	4 " "	3 " "	3	½ "	No.	.....
43	" 12	F	12	"	3 " "	3 " "	2	½ "	No.	.....
44	" 15	F	14	Ad. & Hyp. Ton..	3 " "	3 " "	2	½ "	Yes.	Once
45	" 15	F	14	"	4 " "	3 " "	3	½ "	Yes.	.....
46	" 15	F	15	Adenoids	4½ " "	3½ " "	3	" "	Yes.	Two times
47	" 15	F	14	"	5 " "	3 " "	4	" "	No.	.....
48	" 16	F	8	"	3½ " "	3 " "	3	" "	Yes.	Two times
49	" 16	F	12	Ad. & Hyp. Ton..	3 " "	4 " "	3	" "	No.	.....
50	" 17	F	10	"	3 " "	" "	2	" "	.....	Idiosyncrasy
51	" 19	M	16	Adenoids	2 " "	4 " "	1	½ "	No.	.....
52	" 19	M	16	Ad. & Hyp. Ton..	2½ " "	11½ " "	2	" "	No.	.....
53	" 20	M	12	Adenoids	2½ " "	3½ " "	1	" "	No.	.....
54	" 20	M	15	Hyp. Ton.	3 " "	5 " "	3	½ "	No.	.....
55	" 21	F	10	Adenoids	2½ " "	3 " "	3	½ "	Yes.	Three times
56	" 21	F	10	"	3½ " "	4 " "	2	½ "	Yes.	Two times
57	" 21	F	9	"	2 " "	3 " "	2	½ "	No.	.....
58	" 22	M	12	"	2 " "	4 " "	1	½ "	No.	.....
59	" 22	M	12	"	1½ " "	4 " "	1	½ "	No.	.....
60	1899 Jan. 23	F	19	Ad. & Hyp. Ton..	4 " "	3 " "	3	" "	Yes.	Two times
61	" 23	F	20	Adenoids	4 " "	3 " "	3	" "	No.	.....
62	" 23	F	9	"	5½ " "	3 " "	3	" "	No.	.....
63	" 23	F	14	"	4½ " "	3 " "	3	" "	Yes.	Once
64	" 24	F	14	"	4 " "	4 " "	3	" "	No.	.....
65	" 24	F	21	Hyp. Ton.	6 " "	5 " "	4	" "	No.	.....
66	" 24	F	14	Adenoids	5 " "	5 " "	5	" "	Yes.	Once
67	" 24	F	7	Ad. & Hyp. Ton..	3 " "	4½ " "	3	" "	No.	.....
68	" 24	F	11	"	4 " "	6½ " "	3	½ "	No.	.....
69	" 25	M	17	"	7 " "	4 " "	3	½ "	No.	.....
70	" 25	M	15	Adenoids	7 " "	4 " "	4	" "	No.	.....
71	" 25	M	12	Ad. & Hyp. Ton..	3½ " "	5 " "	2	½ "	No.	.....
72	" 25	M	12	Adenoids	3 " "	4 " "	2	" "	No.	.....
73	" 25	M	12	Ad. & Hyp. Ton..	3 " "	4 " "	3	" "	Yes.	Five times—Shock...
74	" 25	M	17	"	4 " "	10 " "	3	½ "	No.	.....
75	" 26	M	19	"	5 " "	4½ " "	4	½ "	No.	.....
76	" 26	M	19	"	5 " "	4 " "	4	" "	No.	.....
77	" 26	M	18	"	4½ " "	4 " "	3	" "	No.	.....
78	" 26	M	20	"	6 " "	4 " "	5	" "	No.	.....
79	" 26	M	13	Adenoids	4 " "	3 " "	3	" "	No.	.....
80	" 27	F	13	"	3 " "	3 " "	3	½ "	No.	.....
81	" 27	F	12	"	3½ " "	3 " "	2	½ "	No.	.....
82	" 27	F	17	"	4 " "	3 " "	2	½ "	No.	.....
83	" 27	F	15	"	3 " "	4 " "	2	" "	No.	.....
84	" 27	F	16	"	3 " "	3 " "	2	½ "	No.	.....
85	" 27	F	17	Ad. & Hyp. Ton..	4½ " "	4 " "	4	" "	Yes.	Two times
86	" 28	M	13	Adenoids	4 " "	3 " "	2	" "	No.	.....
87	" 28	M	20	"	3 " "	3 " "	1	" "	No.	.....
88	" 28	M	16	Ad. & Hyp. Ton..	3 " "	3 " "	2	" "	No.	.....
89	" 28	M	23	Adenoids	10 " "	4 " "	6	" "	Yes.	Three times
90	Feb. 6	F	5	Ad. & Hyp. Ton..	3 " "	6 " "	2	" "	No.	.....
91	" 6	F	15	Adenoids	1½ " "	3 " "	1	" "	Yes.	Once
92	" 6	F	19	"	3½ " "	3 " "	1	½ "	No.	.....
93	" 7	M	14	"	2 " "	3 " "	1	½ "	No.	.....
94	" 7	M	13	"	3 " "	3 " "	2	" "	No.	.....
95	" 7	M	14	Ad. & Hyp. Ton..	5 " "	4 " "	4	" "	No.	.....
96	" 13	M	16	Adenoids	5 " "	4 " "	1	¾ "	No.	.....
97	" 13	M	16	"	6 " "	3 " "	3	½ "	No.	.....
98	" 13	M	14	"	3 " "	3 " "	2	" "	No.	.....
99	" 13	M	14	"	4 " "	3 " "	2	" "	No.	.....
100	" 14	M	21	"	3 " "	3 " "	2	" "	No.	.....
101	" 14	M	14	Ad. & Hyp. Ton..	3½ " "	4 " "	2	½ "	No.	.....
102	" 14	M	14	"	5 " "	5 " "	2	" "	No.	.....
103	" 16	M	11	Adenoids	2 " "	4 " "	1	¾ "	No.	.....
104	" 16	M	18	"	1½ " "	3 " "	1	¾ "	No.	.....
105	" 17	F	15	"	1½ " "	3 " "	1	" "	Yes.	Once
106	" 17	F	19	"	4 " "	4 " "	2	" "	Yes.	Three times
107	" 20	M	13	"	3 " "	3 " "	1	" "	No.	.....
108	" 20	F	13	"	4 " "	2 " "	2	" "	No.	.....
109	Mch. 27	M	11	"	6 " "	3 " "	1	½ "	No.	.....
110	" 27	M	10	"	1 " "	3 " "	1	" "	No.	.....
111	" 27	M	11	Ad. & Hyp. Ton..	1 " "	3 " "	1	" "	No.	.....

These tables, compiled from cases operated on from October, 1898, to April of this year, furnish data which enable us to make definite deductions as to the reliability of this anæsthetic.

With a very few exceptions, which I shall enumerate, there was no stage of excitement, no cyanosis.

The pulse was increased in tension. Respiration quiet and regular. Unconsciousness occurred in from two to five minutes, and was determined by the absence of conjunctival reflex.

The average time for producing complete anæsthesia was about four minutes and a half. The average time under the anæsthetic was nearly four minutes. The average amount used was three drachms.

Case 1 began with mixture No. 1 and, as it had no appreciable influence in fifteen minutes, I changed to ether, and removed both hypertrophied tonsils. Half an hour elapsed before patient was conscious; vomited three times.

Case 9 required eleven minutes for anæsthesia. The mouth gag became displaced before the operation was finished, and considerable blood was swallowed, the patient vomited five times immediately following the operation.

Cases 19 to 26, inclusive, all showed some degree of stomach irritation. I used a fresh prescription of mixture No. 2 and felt that some error must have crept in in compounding it. At any rate I had another mixture prepared, and had nausea but twenty-four times in the remaining eighty-eight cases.

Case 50. Cyanosis manifested itself at the beginning of the administration of the anæsthetic. As cyanosis could not possibly result from this mixture at the beginning, though it might be questionable later on, I classed the case as one of idiosyncrasy.

The remaining cases present nothing out of the ordinary, excepting Case 73, in which adenoids and double hypertrophied tonsils were removed, and symptoms of shock followed.

In cases cited in this paper, the youngest person operated on was six years old, the oldest twenty-three years of age.

In the one hundred and ten cases, thirty-two vomited. There was no increased secretions of mucous in the respiratory tract.

Schleich's claims for his anæsthetic, in short operations, give proof of meeting every expectation and warrant us in the continued use of it. Moreover from the rapidity with which it acts, and the absence of unfavorable symptoms, it suggests itself as a most desirable anæsthetic to begin with where prolonged anæsthesia is to be used.

ADIPOSE TISSUE AN ETIOLOGIC FACTOR IN HERNIA.*

BY ALEXANDER HUGH FERGUSON, M. D.,
CHICAGO.

In making a study of the etiology of hernia, I was surprised to find the scant mention made of fat in the various textbooks, while the recent, and even remote literature give many examples of it as a cause of rupture. The frequency with which we meet abnormal quantities of adipose tissue in hernial regions in cadavers, and at operations on hernia, shows that more prominence should be given to it. "Fatty hernia" was known to Morgagni (1745); was fully described by Pelletan (1780); Richter, Scarpa, Sir Astley Cooper, Cloquet, etc., make mention of them; but Sutton's remarks on "Subserous Lipomata" (1890); Hutchinson's paper on "Lipomata in Hernial Regions" (1886), and Douglas on "Fat Hernia in Inguinal Region" (1890) deserve special attention. The principal literature is here appended with notes. From it I quote the following expression: "Fatty deposits diminish the abdominal cavity and hernia liable to result from intra-abdominal pressure." (Robison.)

"They (ventral herniæ) are frequently in their early stages merely a prolapse of subperitoneal fat through an opening in

*Read at the 49th Annual Meeting, Cairo, May 18, 1899.

the fibrous tissue of the linea alba." (Eccles.)

"It is also clear that as these local overgrowths of fat arise and protrude in the groin, they occasionally draw with them a pouch of peritoneum unassociated with hernia. These pouches may afterwards lodge a piece of gut and become true hernial sacs." (Sutton.)

"It may be doubtful whether most, if not all of the supposed cases of omental hernia in the linea alba away from the umbilicus are not really outgrowths of subperitoneal fat." (Hutchinson.)

"Hernia commencing in adult life is produced by double mechanism—the pressure from within of the viscera and traction caused by fatty lumps which engage themselves little by little in the rings distending them and thus predisposing to rupture." (Tillaux.)

"Lipomata in their descent draw down a process of peritoneum." (Annandale.)

"It has been recognized that a sac of peritoneum may be drawn out from cavity of abdomen and not extrude from it." (Douglas.)

In June of last year a coal-miner, aged 42 years, was referred to me to cure his ruptures. He had three of them—an epigastric, an oblique inguinal and a femoral. All three were operated upon at one time. The epigastric rupture protruded through the linea alba, and gave more inconvenience and pain than the other two. It consisted of nothing but a small mass of fat, and no sac present, so that it was not deemed necessary to open the peritoneal cavity. The inguinal and crural ruptures were complicated by abnormal accumulations of fat. In the inguinal, fat formed a collar around the neck of the sac. In the femoral the sac was a very small, slender tube, difficult to find in the center of a mass of adipose tissue, rather abundantly supplied with fibrous tissue and blood vessels. I have only operated on eight cases of epigastric hernia. They were all small fatty ones, with a sac (except the case above mentioned), and protruded through the linea alba. In six

cases the primary cause could be traced to some trauma to the linea alba, followed by a protrusion of the subperitoneal adipose tissue, which was forced to assume the shape and consistency of a lipoma. This does not include a very large epigastric hernia, associated with nine other omental ventral herniæ operated on by me at Dunning Poor House. These were no doubt traumatic in origin, as she had had several abdominal sections performed on her in various hospitals in Chicago, and by different operators.

In femoral hernia in middle life I have met almost invariably with an abnormal quantity of fat surrounding the sac, or, rather, a part and parcel of it. In one case an angio-lipoma occupied the saphenous opening, simulating an irreducible hernia. I have never met with a lipoma and femoral hernia together, where the one was independent of the other. In spare, aged people and cases otherwise emaciated, the fat may become absorbed and the femoral hernia assume larger proportions. This I have seen.

In my somewhat extensive experience with operations on inguinal hernia, I do not know what percentage of cases were complicated with subserous lipomata, because in my earlier work I paid very little attention to it. Now, however, I make a systematic search for large or small accumulations of fat in this region, and usually find some to be removed. They are veiled over with a thin covering of white fibrous tissue, which must be torn or cut, and then their connection with the subperitoneal adipose layer is demonstrated. The surgeon soon learns to make a differentiation between the normal layer of fat and these accumulations. They are firm, less vascular, more or less definable from the surrounding fatty tissue and structures, and have a wide range of passive mobility. Along the deep epigastric vessels and towards the bladder, the diffused fat is so abundant, sometimes even in spare people, as to puzzle an operator of moderate experience. Too vigorous a search for lipoma must not be pursued in these two

directions, for fear of removing normal structures, and of injuring these vessels and bladder. Sometimes the sac and cord are surrounded by a uniform layer of fat. (Figs. 1 and 2.)

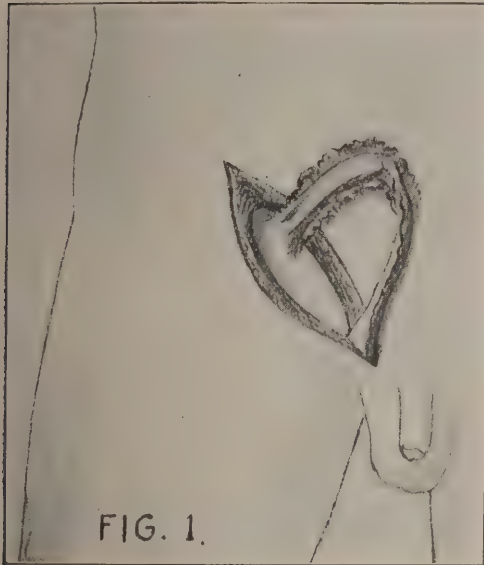


FIG. 1.

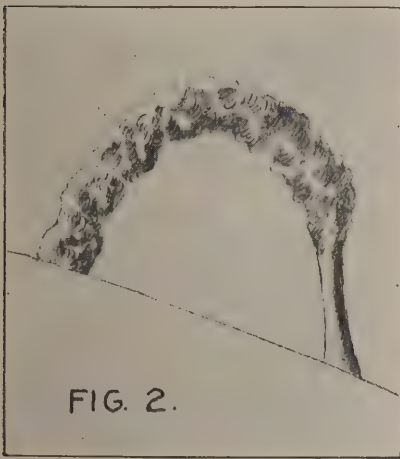


FIG. 2.

You no doubt have noticed in reports of operations on hernia the statement "no sac could be found." This is the very nature of things when the sac is not found. It is either hidden in the center of the cord, surrounded by fat, or has receded into the abdominal cavity. A hernia of this nature is difficult to be retained by a truss, and therefore it is all the more im-

portant to find the sac and obliterate it at the time of the operation, and thereby prevent a sudden return of the rupture. I have operated on five or six cases of this kind, and in three of them the peritoneal cavity had to be opened at the internal ring, the finger inserted, and the sac thus found. A sac is always present in these cases, and if not found, it is the fault of the surgeon.

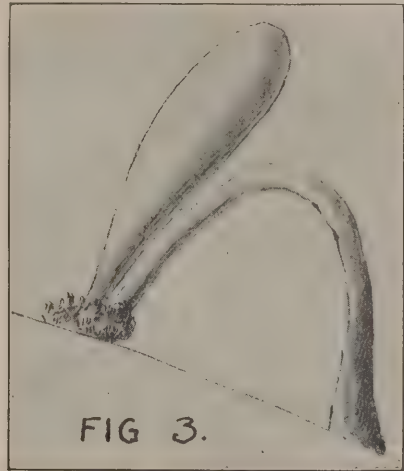


FIG. 3.

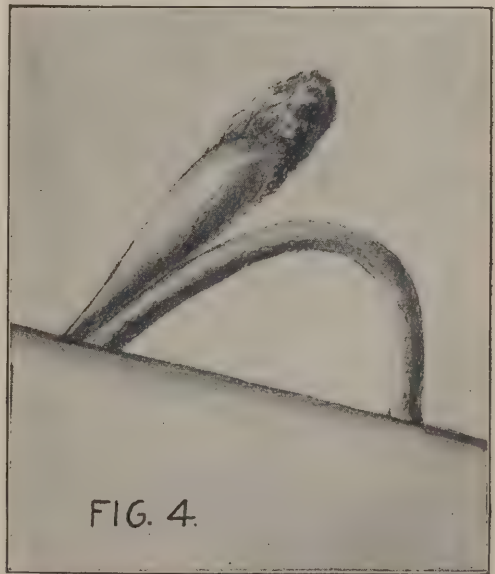
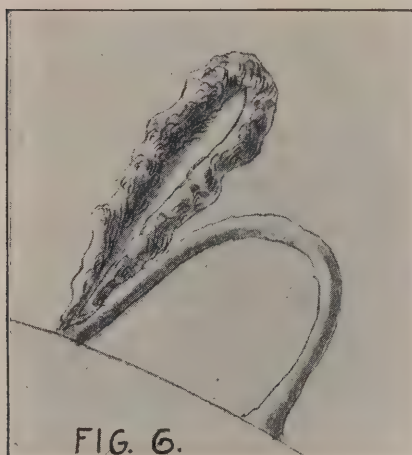
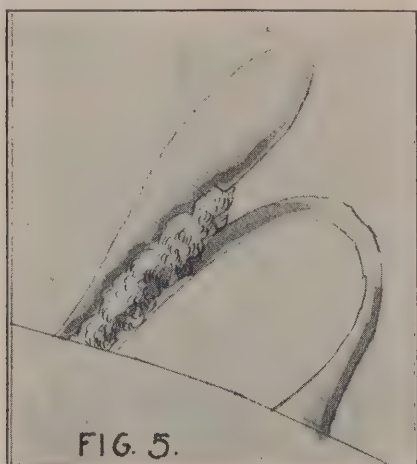


FIG. 4.

When a collar, or several collars of fat are found around the sac or sac and cord (Fig. 3), or on the fundus of the sac (Fig. 4), or in the center of the cord, it is very

probable that the adipose tissue was an important etiologic factor. The aggregation of fat is frequently found lying alongside of the sac, in front of it or between it and the cord (Fig. 5). The only true fatty hernia I ever operated on in the inguinal region is represented by Fig. 6. There was a true peritoneal sac, thin, delicate, and shut off from the peritoneal cavity by



fibrous obliteration of the neck, probably due to two attempts at strangulation that had occurred. It was in a young man, 26 years of age. I have seen two cases of congenital and acquired hernia in the same inguinal region in old people. The acquired hernia in each case was complicated with a fatty mass, and situated near Pou-

part's ligament, above the internal ring. The herniæ which protruded through the aponeurosis of the external oblique and in Hesselback's triangle are more or less fatty. In four cases of relapse of the hernia, at the upper outer angle of the wound after an operation for the radical cure, well defined masses of fat protruded first, and soon afterwards dragged with them the peritoneal lining. It was while operating on these cases to cure the return hernia that I discovered a "congenital deficient origin of the internal oblique muscle from Poupert's ligament," and which led to an investigation of this deficient origin as a cause of hernia, as well as to the invention of my "Typical Operation for the Radical Cure of Oblique Inguinal Hernia."

The umbilical hernia not infrequently has a protrusion of subserous parietal adipose tissue alongside of it, which is a complication rather than a contributing cause. The fatty omentum found in hernial sacs is so frequently mentioned in surgical works as a contributing cause of hernia, that I wish only to mention it. The evidence which proves adipose tissue to be an etiologic factor in hernia is:

1. Its physical properties; its tendency to accumulate in spaces and cavities and then to descend.
2. Its locality and frequent accompaniment of hernia.
3. Its association with the development of certain forms of rupture. The fatty mass forming first and the true rupture following.

Small lipomata form in the openings where hernia is most liable to occur, and by intraabdominal pressure atrophy of the rings occurs; they thin out and weaken and become enlarged, and then the ball of slippery fat urged out by the *vis a tergo*, protrudes more and more, and drags the elastic peritoneum with it. If, however, the abdominal wall had no congenital deficiencies in the structures protecting the normal rings, a hernia would be rare indeed, and no accumulation of fat would be liable to take place.

BIBLIOGRAPHY WITH NOTES.

F. B. Robinson. *Buf. M. & S. J.*, Oct., 1894.

Causes of Hernia. New theory. No. 4. Intraabdominal pressure. Fatty deposits diminish the abdominal cavity, and hernia liable to result from intraabdominal pressure.

Eccles. *M. Press and Circular*, March 11, 1896.

Some Cases of Hernia. Under Ventral Hernia says: "They are frequently in their earlier stages merely a prolapse of subperitoneal fat through an opening in the fibrous tissue of the linea alba."

Fenger. *Ibid*, 320. "Hernia of Bladder with Inguinal and Femoral Hernia."

Case I. Sac curiously folded upon itself, and found it in a diffuse lipoma, or rather, a conglomeration of adipose tissue.

Three such infoldings, and what he took for a fourth proved to be the bladder.

Bemus. *N. Y. M. J.*, Feb. 29, 1896.

Strang. Umbilical Hernia. "Part just beneath surface of skin exceedingly tough in consistence, nearly 2 inches thick. Very deficient in circulation. Beneath this the fat must have been at least 3 inches thick. Sac had forced itself between the tendinous fibers of the linea alba. Found a second constriction within the sac—an omental adhesion."

Parker. *Clin. J.*, July 5th, 1893.

Traumatic Hernia with Int. Obst.

Case III. Fatty tumor in left ventral region near iliac crest. Noticed at time of operation for radical cure of inguinal hernia. This said to be due to a stab received thirty years previous. Scar visible and caused him no inconvenience. After the operation (did not state how long) acute int. obst. at site of this fatty tumor. On examination, it evidently contained strangulated gut.

Was an old omental hernia of traumatic origin, situated where hernia could not occur under other conditions.

Six inches small gut with large amount of omentum found in sac between skin and abdominal muscles.

"True lipoma in inguinal region may simulate, or at least raise the question of, omental hernia. I once treated a middle-aged man for Rt. Ing. Intest. Hernia in which an inguinal lipoma existed on same side. To outer side and close to the hernia. They were obviously separated, as proved by operation, in which lipoma removed and hernia treated simultaneously."

Warbasse. *Brooklyn M. & S. J.*, VIII, 605.

Strang. Umb. Hernia. "Attention has been called to certain small openings along linea alba for intercostal nerves and vessels. Usually they are filled with connective tissue or fat. In fleshy people they become enlarged and a loss of flesh in such persons leaves openings patulous and flabby."

"A reflection of peritoneum by internal pressure may be pressed into such an opening. These fossa are sometimes discovered in dissecting room before any visceral body has become engaged in them. Called the foci of hernia."

Southgate. *Archiv. Ped.*, 1894, XI, 269.

"Aetiology of Hernia in Children."

Lays great stress on rickets.

Stonham. *Ibid*. 98-99, XIII, 21.

"In old people abdominal wall likely to become more or less pendulous and mesentery and abdomen generally become full of fat, so that intraabdominal tension is increased."

Irreducibility may be due to various causes, thickening of neck of sac, but not sufficient to strangle. In a neglected hernia fat may develop in omentum or mesentery, and so make reduction impossible.

Teale, in his work, 1846.

"The natural openings may become enlarged from general distention of wall by pregnancy, ascites or obesity, hence these conditions may be regarded as exciting a remote influence in the production of hernia."

Russel. *Intercolonial M. J.*, Aug. 20, 1898.

Aetiology of Hernia.

Speaks of sphincter action of the inguinal canal. "In normal person hernia impossible."

Goffe. *Am. J. Obst.*, 1892, XXV, 818.

Woman, 36 years. Nine years before had a large lipoma removed from abdomen. It was attached to right inguinal canal and ring. It is possible that this operation weakened the structures in this region, for shortly after, the swelling was noticed at the inguinal site, and increased ever since. Thinking it a return of tumor, did not call medical aid till swelling very large. Operation revealed an inguinal omental hernia containing colon and stomach.

Bunker. *St. L. M. & S. J.*, 1892, LXII, 149.

An Italian died of ulcerative endocarditis. During life a circumscribed fairly firm, but elastic tumor was situated on anterior surface of left thigh, over the saphenous opening. None of symptoms of hernia, and rarity of femoral hernia in male and frequency of lipoma in the subcutaneous tissue of thigh justified diagnosis of lipoma. Sometimes there is an overgrowth of the subserous fat in the neighborhood of the femoral and inguinal canals, which may be mistaken for hernia. On cutting down on this tumor at P. M., it was found to be an epiplocele. The incarcerated portion contained a notable increase of fat, and there was some condensation of the tissue where the neck of the sac had grasped. This local increase of fat from circulatory disturbance has revived the name of capsular lipoma from Virchow.

Birmingham. *N. Y. M. J.*, 1892, LV, 577.

"Irreducible Umbilical Hernia (omental) Simulating Lipoma."

Reves. *B. M. J.*, 1892, I, 1304.

"Large Femoral Omental Hernia Simulating a Fatty Tumor."

Diagnosis of lipoma. Operation; followed up into femoral canal, then its true nature quite plain. Distal part of omentum has lost its vascularity and resembled

quite closely ordinary fatty tissue. At neck the protrusion was more vascular. "The tumor comes under the head of fatty herniæ."

Shepherd. *Ann. Surg.*, 1892, XVI, 137.

Lumbar Hernia. Through Latissimus Dorsi, not Petit's triangle.

Subject not especially fatty. Sac contained a large epiploic appendix which protruded through opening and might have been mistaken for a fatty tumor during life.

J. Bland Sutton. *B. M. J.*, 1890, I, 877.

Remarks on Fatty Tumors.

Subdivision—Subserous Lipomata.

Peritoneum-like skin, rests upon a bed of fat which varies considerable in different situations and individuals. Varieties: Sessile, pedunculated, diffuse.

Inguinal lipomata. Surgeons have long been aware in operating for Ing. or Fem. hernia that occasionally they come across masses of fat and find difficulty in determining whether it is omental, or a local increase of the subserous fat surrounding the hernial sac. It is now clear that in the neighborhood of femoral and inguinal canals an overgrowth of subserous fat may occur and be mistaken for hernia, and individuals have been recommended to wear, and actually have worn, trusses for fatty tumors of this character. It is also clear that as these local overgrowths of fat arise and protrude in the groin, they occasionally draw with them a pouch of peritoneum unassociated with a hernia.

These pouches may subsequently lodge a piece of gut, and become true hernial sacs. In some cases a subserous lipoma of this character will invaginate a peritoneal pouch and form a pedunculated lipoma.

Fatty tumors arising in the subperitoneal tissue occasionally make themselves evident at the ant. abd. wall, especially in neighborhood of umbilicus. They are often referred to as "fatty herniæ in the linea alba." They are often mistaken for omental hernia, and as in the case of inguinal lipomata, they sometimes produce

peritoneal pouches. This form of subserous lipoma may attain a large size, and further simulate hernia in that the traction they exercise on the peritoneum produces pain.

Diffuse subserous lipomata may attain a great size.

Hutchinson, 1888. Tr. Path. Soc. Lond, XXXIX, 451.

"Fatty Herniæ in Linea Alba."

Diagnosis of one swelling as "Fatty Hernia." Other, smaller, near umbilicus was looked upon as omental. Dissection showed that both tumors were overgrowths of subperitoneal fat which had penetrated the aponeurosis of the abd. muscle and lay in the subcutaneous connective tissue. From this they were perfectly well defined owing to difference in color, and lobulation of the two. The peritoneum opposite to each was puckered and showed small processes in the center of each extending for about an inch forwards. These small cavities, or "Potential hernial Sacs," were quite empty, but it is evident that they might have led to the formation of a true hernia. The apertures in the aponeurosis were quite small, the fatty herniæ expanding greatly as soon as they had traversed this layer.

Vomiting and pain, as symptom, often cause error of diagnosis.

Fatty herniæ in linea alba are most common in its upper part. This no doubt is accounted for by the close approximation of the recti muscles just above the pubis.

"It may be doubtful whether most, if not all, of the supposed cases of omental hernia in the linea alba away from umbilicus are not really outgrowths of subperitoneal fat, of course excluding the ventral hernia which sometimes follows abdominal section. Most of them are certainly irreducible." Even if operated upon, unless the surgeon is fully aware of the frequency of them, great difficulty may be experienced in differentiating from omental herniæ. *The diagnostic features*, absence of true peritoneal investment, and absence of any connecting investment between the lobules of fat.

Cites a case operated upon by Frederick Treves.

Supposed omental hernia in linea alba, which proved to be simply composed of fat which came through a small aperture in abdominal aponeurosis.

Hutchinson. Trans. Path. Soc. Lond, 1886, XXXVII.

"Lipomata in Hernial Regions."

Pelletan, in 1780, fully describes cases of fatty tumors in inguinal and femoral canals, and pointed out resemblance to omental hernia. Little notice of subject in English literature. He has studied two questions: (1) Do they, as a rule, originate from subperitoneal fat and travel down the inguinal or femoral canals? (2) Have they any share in producing ordinary hernia by drawing down a process of peritoneum?

Quotes Tillaux: "Hernia commencing in adult life is produced by a double mechanism—the pressure from within, of the viscera, and traction caused by fatty lumps which engage themselves little by little in the rings, distending them and thus predisposing to rupture."

In this region, if anywhere, one would expect the travelling propensity of the tumor to show itself. In nearly all cases he has dissected, found it quite easy to trace the connection with the subperitoneal fat. Cites some cases of so-called omental hernia which have been proven to be subperitoneal fat. The capsule resembles the peritoneum very closely.

Second question: "If it be granted that most of these lipomata are in their origin subperitoneal, it is only reasonable to expect that occasionally they will draw down in their descent pouches of peritoneum." Cites some cases.

Shows a specimen in which general fatty tissue was diminished, and as he gave a history of a sudden giving away, it was looked upon as an omental hernia. But operation demonstrated it to be subperitoneal. Another case femoral. Another case femoral. Case operated for strangulated femoral, and found patient had an internal obstruction.

"Lipomata of sufficient size to be detected during life are very much rarer in femoral than inguinal region; nevertheless, their occasional occurrence may lead to great difficulty of diagnosis."

Conclusions:

1. Lipomata not common in Ing. and Fem. regions.
2. Almost impossible to distinguish from omental hernia.
3. Generally originate from fat lying just outside of peritoneum, and in their descent draw down a process of that membrane.

4. Lipomata of cord, marked tendency to occur on left side.

5. Found in both stout and thin subjects, and seem frequently to depend on local hypertrophy of fat.

Lipomata in the site of Femoral Hernia.

P. Mortem, I.

Operation, III.

Diag. Hernia, I.

Cases Lipoma in Inguinal Region.

P. Mortem, 16.

Operation, 7.

Diag. Hernia, 2.

H. T. Butlin. Tr. Path. Soc. Lond., Vol. XXVI, 186.

"Fatty tumor removed from the inguinal canal during operation for hernia."

No omentum or intestine presented on dividing what he considered as the sac. The tumor was connected to some structure in interior of abdomen by thin fibrous band.

John Gay. XXIV, p. 95, Tr. Path. Soc. Lond.

Rare Form of Femoral Hernia.

"Specimen produced was a hernial pouch or sac, and close adjoining it and attached to outer surface of peritoneum a considerable piece of pendulous fat. All the symptoms of an irreducible omental hernia. (Femoral.) Operation. Turned out a large lobule of fat, which had descended through the ring and was somewhat tightly girted by its walls. *There was no hernial sac.*"

Douglas. Edinb. M. J., April, 1890.

"Fat Hernia in Inguinal Region."

The chief significance of fat hernia depends upon the part they play in the production of hernia of the abdominal contents whether bowel, omentum or other organs.

Their mode of action in this respect lies in the influence exerted by them on the local resistance of the abdominal walls.

Is indebted to Prof. Branne, of Leipzig.

The stronger the tendon of the transversalis muscle is, the less liable to hernia.

If this structure be of *unequal* resisting power in different parts the disposition to hernia is increased.

This point is of importance if as I suggest, a fat hernia may cause an inequality in the resisting power of the wall.

It has been recognized that a sac of peritoneum may be drawn out from cavity of abdomen and not extended from it and to this process we shall turn our attention. This process begins in a localized increase of subperitoneal fat usually in relation to the abdominal openings, inguinal and crural canals, seeing that in three parts a natural depression exists into which fat may develop. It occurs elsewhere in the abdomen not infrequently.

The walls of the inguinal canal lie in close proximity—apposition,—a relation which the intraabdominal pressure tends to maintain. If a mass of fat is formed in the subperitoneal tissue of ext. ring, as it increases in size, it will insinuate itself in front of the well defined inner pillar of the deep abdominal ring and separate it from the anterior wall of inguinal canal.

The process thus goes on till the whole canal is occupied by the fatty protrusion which ultimately projects at the superficial ring.

As fat is increased in size it renders canal more potent by weight and by adhesions formed with the superficial tissue *the peritoneum is drawn down after it.*

There may be just a mere puckering of the membrane at first where fat is attached, which may deepen till a distinct digital depression forms. This increase in size and depth passes into and through canal

and forms a sac ready for the reception of bowel or other contents. This result is obtained by two methods.

1. Peritoneum being displaced by stretching of loose subperitoneal tissue, passes into canal by sliding on the subjacent layers.

2. Or by stretching of the membrane.

Three masses of fat often become blended with a superficial fatty layer and so escape detection during dissection.

Cites our dissection: Found a small mass of fat—subperitoneal—and attached to peritoneum in Hesselback's triangle.

Development of Direct Inguinal Hernia as follows:

1. Formation of a hollow in wall. The transversalis tendon in its weaker part yielding under the pressure of a mass of fat.

The inequality of local resisting power is thus increased.

2. Filling of this fossa by a peritoneal pouch.

3. Entrance of intestine or other contents into sac thus formed.

Some cadavers show fatty crural hernia with lipomata of linea alba.

These facts may explain the observation of Richter, Scarpa, Sir Astley Cooper and Cloquet: That individuals who become rapidly emaciated are prone to hernia.

These fatty masses in most instances attached to fundus of sac and may escape detection during operation, where attention is directed chiefly to the neck of sac.

May also be supposed that in old cases the fat, the primary cause, may have been absorbed or so altered as to escape recognition as such.

Cases where strangulated hernia are "reduced" without relieving the stricture, are frequently such cases where only the subperitoneal sac has been removed, it being mistaken for omentum.

Fatty hernia known since before Morgagni (1745), described fully by Pelletan in 1810, who claimed all could be reduced. Author does not agree.

Prof. Annandale has drawn attention to them.

Cloquet says: "Either pressure from within or traction from without are efficient cause for hernia.

Size. Annandale reports one size of orange. Usually so small as to escape detection during life.

Authors experience has dealt with one varying in size from filbert to chestnut.

"Yet they formed a series illustrating very clearly the early stage of the process and mode of development of a true hernia as a sequel to it.

Lockwood. Tr. Path. Soc. Lond., XL, 115.

A ventral hernia formed by the protrusion of an appendix epiploica through the linea semilunaris. First considered as a subperitoneal lipoma.

"Its origin seems quite inexplicable."

F. J. Lutz. St. Louis M. & S. J., Feb., 1889.

"Fatty Tumor complicating Femoral Hernia."

A subperitoneal fatty tumor of hernial sac. Microscopic difference between tumor and omentum. In omentum fat arranged characteristically around the blood vessels.

A. P. Dudley. Am. J. Obst., 1890, XXVIII, 528.

Strangulated Ventral Hernia, woman 90 years old, weighing over 200 pounds.

This woman had been operated upon once before for Strangulated Femoral Hernia.

Thomas. Lancet, 1889, II, 1224.

"Extra peritoneal Fat Simulating Hernia."

A case met in dissecting room.

Smith. Lancet, 1890, I, 1013.

"Umbilical Hernia."

Supposed to be an omental hernia in upper part of linea alba in a male.

On operating, was found to be a mass of subperitoneal fat, resembling omentum but had no peritoneal sac. Mass continuous with subserous fat by a pedicle which passed through small orifice in linea alba.

Relief of all symptoms followed removal and closure of opening in linea alba.

Rodgers. Pitt. Med. Rev., 1893, VII, 298.

"A case of Ventral Hernia."

Opened abdomen, found omentum adherent to margins of hernial sac. Detached omentum and returned it. Then dissected away a large amount of adipose and fibrous tissue.

King. Int. M. Mag., 1893, II, 701.

"Umbilical Hernia."

Due to pregnancy, tumors, ascites and obesity.

May be caused by direct pressure or by subsequent sudden relaxation of over stretched tissues as occurs after parturition and after rapid reduction of corpulency, as in tuberculosis and other diseases.

SURGICAL TREATMENT OF HEMORRHAGE FROM GASTRIC ULCERS, WITH REPORTS OF TWO CASES AND ANIMAL EXPERIMENTS.*

BY E. WYLLYS ANDREWS, A. M., M. D., AND
DANIEL N. EISENDRATH, A. M., M. D.,
CHICAGO.

1. HISTORY. The first surgeon to resort to operative interference in the treatment of hæmatemesis from round ulcer of the stomach was Mikulicz,¹ who in 1887 operated upon a patient in whom he had diagnosed a probable ulcer of the pylorus. Upon opening the stomach he found a stenosis of the pylorus, which he divided longitudinally. He found an ulcer which, being unable to extirpate, he cauterized. The patient died after 50 hours without recurrence of hemorrhage. The next operation was by Mixer,² who operated upon a case of Gannett's in which there had been recurrent hæmatemesis for three years. He did not find the ulcer. The patient dying, the autopsy showed an ulcer of the posterior wall with a double perforation of the pancreatico-duodenal artery. In 1889 Salzer³ operated upon a case in Billroth's clinic in which he also failed to find the ulcer. In 1892 Doyen⁴ performed gastro-enterostomy for an ulcer of the pylorus, with recovery. In 1893

Roux,⁵ of Lausanne, at the French Surgical Congress reported two cases, in one of which he ligated the bleeding artery and then excised the ulcer, and in the other ligated the artery at the two ends of the lesser curvature without resection of the ulcer. Both recovered without recurrence of hemorrhage. In the same year Guinard⁶ performed gastro-enterostomy for hemorrhagic pyloric ulcer with recovery. In 1894 Küster,⁷ of Marburg, reported two cases in which he cauterized the ulcers. In both on account of a pyloric stenosis he did a gastro-enterostomy, the patients recovering without further hemorrhage. In the same year (1894) Curtis^{7a} performed a pyloro-plastic operation through ulcer floor with recovery. In 1895 Elliott and Cutler⁸ operated upon a patient with repeated hemorrhages by resection of the pylorus, the patient dying upon the fourth day. Hartman,⁹ in the same year, performed a gastro-enterostomy with fatal outcome for the same condition. Hirsch,¹⁰ in 1896, found no ulcer after an exploratory gastrostomy, although there had been frequent hemorrhages. Abbe,¹¹ in 1896, had a similar experience. In the former case the patient improved, in the latter, died. Körte,¹² in 1897, reported a case at the German Surgical Congress in which he had used the cautery on a bleeding gastric ulcer, which could not be extirpated. The patient died eight days after operation, the autopsy revealing an ulceration of the splenic artery. At the same time Mikulicz¹³ reported two cases which he had operated in 1894, in one of which he resected the ulcer with no recurrence of hemorrhages for three years. In a second, in which he cauterized the ulcer, the patient died the same evening. In 1897 Michaux¹⁴ operated after four severe hemorrhages during the preceding week. He could not find the ulcer. The hemorrhage recurred and the patient died. At the autopsy an ulcer the size of a 2 franc piece was found involving only the mucosa, near the lesser curvature with ulceration of an arteriole. Cain¹⁵ reports in 1897 a case in which four erosions were

*Read at the 49th Annual Meeting, Cairo, May 18, 1899.

found. He sutured them with catgut. The patient recovered without further hemorrhages. Tuffier¹⁶ in the same year performed a gastro-enterostomy for an ulcer near the pylorus with hemorrhages, the patient recovering. In 1898, E. W. Andrews operated two cases of gastric ulcer with recurrent hæmatemesis which will be the subject of this paper. At the German Surgical Congress held last month (1899), König, Jr.,¹⁷ of Berlin, reports a case of resection of the stomach for gastric ulcer with continued hæmatemesis. The ulcer was situated near the pylorus, but the operator only removed the source. The resulting cicatrix caused obstruction and a secondary gastro-intestinal anastomosis was necessary.

2. CLINICAL FORMS OF HEMORRHAGE.

Clinically we have three forms of hemorrhage for gastric ulcers. 1. Foudroyant, in which death occurs in a few minutes. 2. Acute, in which there may be recurrent hemorrhages varying from 500 to 1000 grammes. The syncope which follows causes decreased cardiac action, decrease of blood pressure and spontaneous cessation of hemorrhage. 3. Chronic form in which there are small frequently recurring hemorrhages often associated with pyloric stenosis.

3. SOURCE OF FATAL HEMORRHAGE.

This is usually from an artery, although in four cases described by Savariaud¹⁶ a venous hemorrhage was the cause of death. In considering arterial sources, they may be either from the stomach walls, which is the more frequent, or from one of the vessels adjacent to the viscus. In forty-seven cases the source was the splenic in seventeen, the coronary in six and arterioles in ten. Other vessels such as the aorta and even the heart may be perforated. (See table below.) There is usually an oval perforation of the side of the vessel, but the latter may be eaten straight across. At times when the source of hemorrhage cannot be found, it may have been capillary.

4. DURATION OF HEMORRHAGE. This means the time between its occurrence and

its ending in either syncope or death. We may divide them into sudden death, rapid death and death after an interval, as shown in the following table compiled by Savariaud, who in his thesis published last year has written the most elaborate and thorough article on this subject.

Vessels.	Number.	Immediate Death.	Rapid Death.	Death after longer time.
Heart	4	1	1	2 (3 days)
Aorta	2	1	1	1 (10 ")
Hepatic	2	1	1	1 (10 ")
Splenic	17	3	7	7 (2 to 18)
Coronary	6	1	3	2
Pancreatico-Duodenal ..	6	1	3	2 (8 & 15)
Arterioles	10	1	1	8 (4 & 15)
Little Veins	4	1	1	2 (7 & 11)
Invisible Vessels	3	2	1	1 (21 days)

Sudden death may be the result of microscopic ulcerations and at times there seems to be no relation between the calibre of the blood vessel and amount of hemorrhage, hence it is frequently difficult to estimate the size of the blood-vessel from the quantity of blood.

5. VARIETIES OF ULCERS. The most frequent is the so-called ulcer of Cruveilhier, or simple ulcer, which may be met with in three stages, recent, cicatrizing or beginning. As regards size, there are also three kinds; large, size of dollar, medium, size of quarter, and small, size of dime. These generally ulcerate down to blood vessels of submucosa. They are met most frequently on the lesser curvature according to Welch, and especially on the posterior wall, as the following table shows:

Welch's table of location:

Lesser Curvature,	288 (36.3%)
Posterior Wall,	235 (29.6%)
Pylorus,	95 (12 %)
Anterior Wall,	69 (9.7%)
Cardia,	50 (6.3%)
Fundus,	29 (3.7%)
Greater Curvature,	27 (3.4%)

Van Valzah & Nisbet:

Anterior Wall,	923
All other locations,	425

Greiss & Cohn (Dissert. aus. d. path. Inst. in Keil) state that only two per cent in posterior wall perforate, and eighty-five per cent in anterior wall.

They may be multiple, and when so quite distant from each other. When these ulcers extend beyond the submucosa into the muscularis and serosa, they produce perigastric adhesion, induration of stomach walls and may gradually perforate one of the perigastric vessels. Hemorrhage may occur from simple erosions of the mucosa and at times we may have very superficial ulcerations (exulceratio simplex of Dieulafoy). About twelve of these have been observed. These affect the arterioles of the submucosa and may at times cause a fatal hemorrhage. They are so superficial that at times it is necessary to use a lens to see them.

6. CLINICAL HISTORY. The patients may be divided into three classes. 1st. Those who have had characteristic symptoms, e. g. pain, vomiting, hemorrhages and emaciation. 2nd. In addition to these symptoms, those of pyloric stenosis. 3rd. Those in whom the ulcers have been latent (this constitutes the history in one out of five cases). In these there are no previous attacks of gastralgia, etc., but suddenly patients who have previously enjoyed good health have a violent hæmatemesis.

7. DIAGNOSIS. This can be made from the previous history of pain in epigastrium increased by food. Vomiting and history of previous hemorrhages are found in some cases, but in others, when a previously healthy person has a sudden hemorrhage, the diagnosis is puzzling. A differentiation must then be made from rupture of aneurism into stomach, of esophageal varices (frequent in hepatic cirrhosis), also from perforation of hepatic artery and portal vein by biliary calculi, and from miliary aneurisms of stomach, as well as hæmoptysis, nasal hemorrhage and that caused by carcinoma, by syphilitic and tubercular ulcers of the stomach. The diagnosis of the seat of the ulcer from the location of the pain is not to be relied upon. We can only differentiate the hem-

orrhage caused by ulcer from that due to hemorrhage erosions or ulcerative gastritis by the rarity of the latter. It is also impossible to diagnose the size of the eroded vessel from the quantity of blood lost at a single time. A small arteriole can gradually cause as much loss as an ulceration of the splenic.

8. MORTALITY FROM HEMORRHAGE. The average number of deaths due to hemorrhage is five in a hundred cases of gastric ulcer. Some authors have a small percentage, e. g. Leube,¹⁸ only 1.1%; Müller,¹⁹ in 127 ulcers, noted hemorrhage 37 times, of whom 14 died, or 11%, so that the maximum is the latter (11%), the minimum the former (Leube's) 1.1%.

9. INDICATIONS FOR SURGICAL INTERFERENCE. Gastrorrhagia belongs to the surgical domain after medical treatment has been given a fair trial without success. The indications for operations on gastric ulcers laid down by Leube¹⁹ at the German Surgical Congress, 1897, are: 1st. Moderate recurrent bleeding (single profuse hemorrhage not an indication). 2nd. Severe pain and obstinate vomiting, resisting medical treatment. 3rd. Perforation.

Kocher,¹⁶ in a very recent paper, confirms Leube's statements and adds that it is well to interfere before the patient is exhausted by repeated hemorrhages or excessive gastric trouble. He considers surgical interference "a refuge but not a last refuge." Kocher advocates excision for hemorrhage, gastro-enterostomy or pyloroplasty for inaccessible ulcers or great distensions. Suture methods rather than mechanical devices, such as plates or buttons are his preference.

According to Dieulafoy, if a patient vomit 50-200cc. of blood he will recover spontaneously, but if one-half litre or more is vomited, especially if this be repeated once or twice, such a patient will die if not helped by operation.

These cases show that an important vessel has been opened, probably parietally, so as to be unfavorable for spontaneous closure. It is difficult to estimate the quan-

tity of blood lost accurately as some may have passed into the bowels.

These conclusions fairly represent the attitude of conservative surgeons and show a growing tendency to make the disease a surgical one. As a majority of the fatal results have been from shock and exhaustion, it is certain that early interference will reduce the mortality. While it is true that the manipulations in exploring and operating upon the inner wall of a hollow viscus present formidable difficulties, we feel warranted in claiming that, with fair dexterity and a carefully elaborated technique, bleeding ulcers may be searched for, found, and extirpated with comparatively little danger.

The shock element in gastric surgery is less important than has been assumed by some writers. Thus the supposition by Willoughby Furner,¹⁷ that the proximity of the solar plexus to the posterior wall causes sudden "heart failure" is hypothesis rather than pathological fact. We find in actual practice that the impression made upon the sympathetic system is less profound in stomach operations than in the intestine. This may be explained partly by the fact that the stomach is easily located, and promiscuous handling of viscera is avoided, and partly by the fact that its walls are thicker, stronger and less liable to be injured by palpation, the use of hooks, clamps; etc., than the bowel wall. Nevertheless, certain obstacles to success must be considered as constant. Among these are (1) previous state of exhaustion; (2) difficulty of finding the ulcer, as when it is in the cardiac end or in the duodenum, or is very small; (3) location of the ulcer on posterior wall with strong adhesions to pancreas; (4) erosion of vessels not connected to stomach wall, such as splenic artery, vena porta, hepatic artery, etc. These various difficulties will be considered in detail.

10. METHODS OF OPERATING. As to the best manner of dealing with the ulcer itself or its bleeding vessel, it may be said that excision is ideal, but is far from being practicable in all cases. In the anterior

and posterior wall and greater and lesser curvatures, it is easy except when adhesions, as to the pancreas, prevent access. Near the pylorus, it is practicable with gastro-enterostomy or without it. Pyloroplasty may be done through the floor of a bleeding ulcer. At the cardiac end of the stomach it is difficult or impossible to gain proper access for performing an excision properly.

Cauterizing the ulcer, as practiced by Küster,¹⁸ seems to have been successful in several cases. No reliance is to be placed upon the cautery in checking hemorrhage from very large vessels, such as the splenic, coronary, etc.

Proximal ligation of a large trunk may be considered more scientific. Roux in two cases successfully ligated the arteries of the lesser curvature. Savariaud advises on theoretical grounds ligation of vessels of both lesser and greater curvature in cases where the ulcer cannot be found. We consider that the danger of possible gangrene of a segment of stomach wall, is suggested by the frequent occurrence of this accident in the intestines. In the latter great care has to be used not to injure the afferent branches. In the thicker stomach wall the danger of sloughing from anemia may be less, but we do not know that it is altogether absent.

Another suggestion by this writer is that the ulcer be curetted (grattage) with the expectation that the vessel or vessels will then bleed, when they may be caught up and ligated. Should the scraping process perforate the stomach wall, the conditions are favorable for closing the opening.

Ligation of the small areas of eroded mucous membrane has been practiced by Cazin.¹⁴ Catgut ligatures were thrown around several bleeding points and recovery followed.

Finally, we desire to call attention to a method employed in two cases with success, consisting of the ligation *en masse* of the stomach wall drawn up into a cone including all its coats. This was done in the first instance because of adhesions to

the pancreas preventing easy access to the posterior wall, and in the second case rather from choice, there being several ulcers to remove. Immediately on returning the first patient to bed an anxiety was felt lest the rapid digestion by the stomach secretions should remove the mass beyond the ligature before firm closure of the vessels.

A series of experiments on living animals was then made to test the durability of the ligature and stump, a description of which will be found below.

11. TECHNIQUE OF OPERATIONS FOR HEMORRHAGE. Lavage of the stomach, favorably spoken of by some writers, should be avoided, as it may provoke new hemorrhage. The previous light diet of the patient will ensure a collapsed condition of the viscus. The horizontal rather than the Trendelenburg position should be chosen, although it is true that in the latter the liver requires less retraction in certain cases. Savariaud advises a bending of the trunk by pillows placed beneath the hips and shoulders to relax the anterior abdominal wall. As the location of the ulcer is usually unknown, the abdomen should be opened in the linea alba, and in a majority of cases this should be of ample length, reaching to the umbilicus. Lateral incisions can be used if special circumstances demand them. Adhesions from plastic peritonitis may cause delay in uncovering the stomach wall. These should be divided with great care and especial attention given to hemostasis. The stomach is easily distinguished from the transverse colon by its peculiar arrangement of vessels. Its anterior wall should be seized and, so far as possible, drawn into the abdominal wound and held by compress sponges in such manner as to wall off the general peritoneum. Inspection and palpation of the external surface should now be made in a systematic manner in order, if possible, to determine the location of the ulcer from without.

Keen²¹ states that the peritoneal coat is sometimes marked by an indurated and discolored spot opposite the ulcer. Other observers speak of finding opposite the site

of the ulcer cicatricial thickening with the peritoneum drawn into radiating folds. Such guides would be of great value to the operator as the time saved in exploring the interior would be considerable and, probably, one incision would suffice for the excision and exploration. It is not to be assumed, however, that this explanation should be omitted even when an ulcer is found anteriorly. On the contrary, a considerable number of cases present two ulcers symmetrically located on anterior and posterior walls. Thus R. Steele²² reports an unsuccessful case of gastrostomy in which the autopsy showed that a second ulcer in the posterior wall had been overlooked.

This condition of double ulcer is stated by Furner to be present in 13 per cent of cases, the posterior one, being usually adherent to pancreas and tending to perforate and cause hemorrhage, is the more important. The posterior wall should now be examined from without by the hand passed through an opening made in the greater omentum. This position of the hand also is advised as an aid to the internal inspection later on. In palpating the pylorus it is to be remembered that inflammatory or cicatricial thickening may cause a sensation not unlike that of carcinoma. The normal ring-like feeling of the duodenum should also be familiar to the operator. If no external guide to the location of the ulcer is found by inspection or palpation, the organ must be laid open by a vertical incision 6-12 cm. long between the branches of the coronary artery. Savariaud¹⁶ advises that these vessels be ignored, and that a horizontal incision be made 8 cm. in length midway between the greater and lesser curvatures. Doubtless the vessels in this case could be seen and ligated easily before division, as they always lie pulsating in plain view just beneath the peritoneum. This writer's conclusions are based upon cadaver experiments, while our own rest upon experience with the living human subject and animal experiments. We cannot but think that he underestimates the difficulties and de-

lays which would arise from long horizontal incisions, due to hemorrhage. It is certain, however, that the horizontal incision is the more favorable for examining the two ends of the viscus from within, especially the pyloric end.

Before opening the stomach, if it is much distended with gas or fluid, the surplus may be drawn off by a tube and trocar. After opening, the toilet of the interior should be continued by careful sponging with absorbent pledgets, care being taken that none of these are allowed to infect the laparotomy sponges. It is safer to have a specified number of small tampons set aside for this purpose of such shape that they cannot be mistaken for ordinary sponges. These can be accounted for separately after the operation. The large napkins placed exterior to the stomach must not be removed until the incision in its anterior wall has been closed. The opening in the greater omentum for gaining access to the posterior wall must therefore be left so as to be accessible without disturbing them. The more the whole organ can be drawn outside the abdominal wall the safer the operation becomes, as the danger from handling and contact with the air is much less than that from infecting other viscera by contact with the mucous lining. In practice a large portion of the anterior wall can usually be brought outside, so that by careful use of pads the operation becomes for the time almost extraperitoneal. In case of numerous adhesions, this is not easily done and the abdominal incision may have to be correspondingly larger. The search for the ulcer must now be carried on systematically by inspection of mucous lining assisted by palpation. Strong light is essential and the aid of a small electric lamp and reflector is advisable. Dieulafoy advises the use of a lens.

In our first operation the stomach was explored by drawing up successive portions of the mucous surface with forceps, inspecting them through the anterior incision and then allowing them to return. In this way an ulcer was found located

on the posterior wall. This method has the disadvantage of leaving small lacerations where the volsella have grasped the mucous membrane, which bleeds slightly and may be mistaken for ulcers. The membrane tears very easily into ribbons if the forceps slip. With the exception of the pylorus, the lining of the stomach is best examined without being touched by instruments. The pylorus, or even a small portion of the duodenum, may be invaginated and drawn up with forceps thrust into it. The examination of the duodenum by palpation alone is not infallible, as recent ulcers do not produce much induration. Passing from the pylorus toward the left nearly the whole interior of the stomach may now be inspected by the following manoeuvre: The hand is passed behind the organ through the opening in the omentum already mentioned. The posterior wall is now pushed forward into the opening and passed portion by portion into plain view. This may be continued until the whole posterior wall nearly to the cardiac end has been gone over. The greater and lesser curvatures and the remainder of the anterior wall may in the same manner be caused to invert and pass in review beneath the opening, the latter being caused by traction to assume various positions to assist in this invagination. Should the posterior wall be adherent to the pancreas, as in Case 1, and somewhat immovable, that particular part of the viscus should be inspected by reflected light. In such a case the lesser peritoneum should be opened, which will give additional access to the posterior wall.

We now come to a portion of the stomach interior which cannot be drawn down or forward, namely, the cardiac end where covered by the left lobe of the liver and attached to the diaphragm. To inspect these parts it is necessary to illuminate the cavity and retract the liver and costal arch. The Trendelenburg position would probably be of assistance at this stage, both in gaining access and in the matter of illumination. With care a good view can be obtained of the whole cardiac end and opening.

The search for ulcers should be prosecuted systematically, and in our opinion should be in the following order:

1. Anterior and posterior walls, and greater and lesser curvatures.
2. Pylorus and duodenum.
3. Cardiac end.

This is based on the order of frequency, as shown by the statistics of Welch quoted above.

It is obvious as but 12 per cent are at the pylorus and 6 per cent at the cardiac end, that the two ends may be examined last. We may even omit the examination of the stomach orifices after having found one ulcer in the middle portion without great risk of overlooking a second. We advise, however, that the pylorus be not passed by except where the time element is very important, since pyloric ulcers and their sequelæ in the form of stenosis are not uncommon.

In our second case a stenosis of the pylorus, probably, existed at the time of the first operation. It could have been remedied by a pyloroplasty with slight additional risk.

Before speaking of the actual treatment of the ulcer it may be well to consider the problem presented by the failure to find any ulcer or source of hemorrhage. The ulcer may be concealed beyond the pylorus in the duodenum, in such a case, and gastro-enterostomy or pyloroplasty may be unavoidable. The invagination of the duodenum is practicable for a distance of 4 or 5 cm., within which distance, according to Colin,²⁰ 92 per cent of duodenal ulcers are found. The Loreta operation of digital divulsion of the stenosed or normal pylorus is to be advised as an aid to exploration.

12. TREATMENT OF THE ULCER WHEN FOUND. EXCISION. The ideal treatment of the ulcer when found is unquestionably excision. The afferent vessels are in this method divided and can be secured before the sutures are applied. In the central portions of the stomach, where both mucous and peritoneal surfaces are accessible, an elliptical piece of the wall, including

the ulcer, can be removed, and the wound closed by double or triple lines of suture with the utmost security. It is doubtful whether excision from the mucous side alone without access to the outer wall, so as to place a Lembert suture, is safe against leakage. When the posterior wall is adherent to the pancreas and the ulcer has penetrated its substance, it may be assumed that the bleeding vessel is the splenic artery. When at the pylorus it is the pancreatico-duodenal. In the cardiac end the ulcer is also inaccessible except from the mucous surface.

CAUTERY. In all these locations we may resort to the Küster method of actual cautery. The smallest Paquelin point is well shaped for this purpose. Küster adds gastro-enterostomy to the cauterization with a view to removing the cause of the disease. The cautery has the merit of prompt and positive closure of small vessels, but is not to be depended upon for sealing large arteries such as the coronaries or splenic. The exact state of the ulcer after separation of the slough, whether it show a tendency to better healing is not known. The possibility that the cautery might lead to perforation in an ulcer already deep, ought seriously to be considered. This seems to us a real danger. Should the eschar involve the whole thickness of the stomach wall, peritoneal adhesions would form rapidly around it which, before the time of separation, might prevent leakage.

CURETTING. Ulcers situated unfavorably for excision may be denuded with a curette. Should this reopen a bleeding point, the conditions are favorable for the application of forceps and ligature. The hemorrhage thus started might, however, be difficult to check if the tissues were friable, or if it came from a deep source such as a perforation in the pancreas.

LIGATURE OF MUCOUS MEMBRANE. Dieulafoy²³ and Colin²⁰ have advocated in what is termed by the former "exulceratio simplex," causing superficial erosion, that the bleeding spots be tied up in loops with their underlying mucosa.

LIGATURE EN MASSE OF ALL COATS OF THE STOMACH FROM WITHIN. This method was used tentatively in Dr. Andrews' first operation, and more or less deliberately in Case 2. Dr. Eisendrath then suggested that the value of the method be tested by animal experiments, and a number of these operations were performed to settle the question of the durability of the ligated mass, the danger of perforation, rapidity of healing, and most advantageous technique. These will be spoken of shortly.

13. OPERATIONS ON THE HUMAN SUBJECT. CASE I. Mrs. F. H., aged 38. Family history negative. Had borne nine children, seven living. Has had six miscarriages without serious consequences. Never has been ill otherwise. Present trouble existed two years. Has had constant boring pain located beneath xiphoid cartilage greatly increased at times by ingestion of solid food. Appetite poor. For the preceding two months has been able to use only liquid food.

May 28, 1898, Dr. W. W. McCleary was called to see the patient, who was in collapse from sudden profuse gastric hemorrhage. This amounted to a litre (estimated) of dark blood and patient became unconscious for a few moments. A sensation described as gurgling was felt at the time. The following day another profuse hemorrhage occurred producing faintness and prostration, but no loss of consciousness. Dr. E. Wyllys Andrews in consultation with Dr. McCleary advised immediate removal to the Michael Reese Hospital, where patient was taken same day for operation. The condition was then one of extreme prostration from anemia, with characteristic pallor, weak pulse, and cold, relaxed skin.

Operation. Gastrotomy by Dr. Andrews, assisted by Dr. McCleary and Dr. Schram, May 30th, 1898. Abdomen incised from xiphoid cartilage to umbilicus. Parietal peritoneum anchored to skin by temporary sutures. The anterior wall of the stomach was then drawn into the field, isolated by sponges and incised vertically,

8 to 10 cm. Bleeding vessels in the stomach wall were secured. Stomach explored by inspection, the greater and lesser curvatures and posterior wall being drawn up with forceps and examined step by step until the ulcer was found opposite the opening on the posterior wall. This was round, 12 m.m. in diameter, and deeply eroded. Its floor was formed by grayish necrotic tissue. Probably this was gland tissue of the pancreas to which the stomach wall seemed adherent. The posterior wall could not be drawn up freely, but was lifted somewhat and the question of excision decided in the negative. This decision was based upon the idea that a suture placed from within could not be made secure against leakage. It was thought that the extravasation, even if not into the free peritoneum, would be as disastrous in the end from burrowing and sepsis. The ulcer was drawn forcibly forward so as to form the apex of a cone around the base of which a strong ligature was tied. Just what tissues this included could not be ascertained, but certainly all the coats of the stomach. The anterior wall was then closed by Czerny-Lembert suture, and the laparotomy finished in the usual way.

This patient made a rapid recovery and has remained well, as reported by Dr. McCleary, up to the present time.

CASE II. C. L., male, aged 36. Patient had suffered for several years from cardialgia and nausea. Dr. A. H. Wales, who saw him July 5, 1898, made a diagnosis of gastric ulcer and referred him to Dr. Frank S. Johnson. The day preceding he had a profuse gastric hemorrhage. He was put upon nutritive enemata containing spirits frumenti and eggs and milk peptonized. This treatment with occasionally milk and lime water by the stomach was continued about two months. Gastric pain was a constant symptom during the summer and emesis was rather frequent. September 16, the stomach was washed out after a test breakfast. Laboratory report showed a large amount of mucus, free hydrochloric acid, and no

organic acids. A second washing September 18th was identical.

September 22. Patient still complained of gastric pain, and at 5 P. M., after ingesting a small amount of milk, had a severe hemorrhage about 800-1000 c.c. of nearly fresh blood. Dr. Johnson referred the case to Dr. Andrews, who performed gastrotomy April 26th, with the assistance of Dr. Eisendrath and Dr. McCleary. The abdomen was incised from sternum nearly to umbilicus. No adhesions found. Anterior wall drawn forward, isolated by sponges and incised vertically at middle, 8 c.m. Systematic exploration revealed one considerable erosion on posterior wall, size 1 c.m. This scarcely penetrated below the mucous membrane and bled on handling, but not profusely. Similar but smaller erosions were found at three other points, one posterior, and two on anterior wall. These caused no perceptible thickening on peritoneal side. All these points were ligated off with large silk and the stomach wall united as in Case I.

This patient was thoroughly exsanguinated before the operation, but suffered no unusual prostration as a result of it. Saline solution was used by rectum only, and rectal feeding continued for two weeks, when small amounts of milk were given. He continued to suffer from gastralgia until he left the hospital, November 3rd, 1898.

Blood examination the day of operation, September 26th, showed red corpuscles, 900,000=18 per cent.

September 29th, showed red corpuscles 1,200,000=24 per cent. Hemoglobin, 15 per cent. October 3rd. Red corpuscles 1,400,000=28 per cent. Hemoglobin, 17 per cent.

Patient passed later to the care of Dr. Otto Schmidt at Alexian Hospital, who reported no further hemorrhages. He continued, however, to suffer from gastralgia and dilated stomach, which resisted all treatment. February, 1899, he underwent an operation for gastro-enterorrhaphy by the button. This was performed by Dr. E. H. Lee, of the surgical staff, Dr. An-

draws being present and examining the pylorus, which seemed contracted by internal cicatrices. Patient did well for one week, but died at the end of that time in collapse from general peritonitis. The autopsy showed failure of union at the point of approximation, causing leakage of stomach or bowel contents.

14. EXPERIMENTS ON DOGS. In order to confirm the value of this method experimentally, the operation as it had been performed upon two human beings, was repeated upon 9 dogs. The technique of the operation was alike in all. An incision was made in the median line after the usual disinfection of the abdomen; the peritoneal cavity opened and stomach pulled out. An incision about 8 c.m. in length was made in the anterior wall about midway between the greater and lesser curvature, and an equal distance from cardia and pylorus. In those dogs in whom two areas were ligated, two portions of mucous membrane were snipped off with scissors to resemble in some degree an ulcer as it occurs in the human subject. This was merely from an anatomical standpoint, in order to test the value of the method for ulcers situated at different parts of the stomach; it being impossible to imitate the exact pathological conditions found in the human subject. After ligating such an area, as shown in the drawings, which was done by pushing up such a hypothetical ulcerated surface, with the finger inserted on the serous surface, strong silk was used as the ligature material, the deligated cone, which included all of the coats of the stomach, rapidly became of a dark blackish color and sharply demarcated from the surrounding mucosa. On the serous surface, a distinct depression was visible, corresponding to the area which had been invaginated. This puckered up depressed area was closed by serous sutures. Our reason for having the latter as part of our uniform method will be shown later. After varying intervals of time the dogs were killed. The first dog operated upon was killed one and a half days after the operation. The deli-

gated areas were readily found on the anterior and posterior walls, one place in each having been selected at the time of the operation. The serous sutures were covered by a perfect plastic lymph. There were no evidences of peritonitis. Examination of the deligated areas themselves, after opening the stomach, showed that no digestion of the same had taken place. There was a sharp demarkation between the invaginated portion, at the summit of which was an ulcer, and the surrounding mucous membrane. Sections examined microscopically showed that the ligated portion no longer took the stain and there had been some hemorrhage into the various tunics of the stomach which had been thus cut off from their nutrition. Near the ligature the vessels of the submucosa were thrombosed and the tissues around it again took the stain.

The second dog was killed after three days. In this the condition was about the same, except that the invaginated portion was softer. In a dog, killed four days after operation, in place of the deligated masses, there were ulcers in the mucous membrane about the size of a quarter, with rather sharp edges, and the floor covered with mucous and stomach contents. On section of the stomach wall this floor was seen to be formed by the muscularis and serosa. Microscopically these ulcers resembled completely recent ulcers as found in the human stomach. The upper layers of the muscularis and of the remaining submucosa were densely infiltrated with round cells. The blood vessels were filled with thrombi.

A fourth dog was killed eleven days after operation. The condition found on examination of the interior of the stomach was about the same as in the fourth day dog, but differed microscopically in the fact that the round cells were being replaced by granulation tissue and the thrombi beginning to be organized. In both of the latter dogs there was considerable thickening of the peritoneum, but no adhesions to surrounding viscera. In the eighteen day dog, that is, one which was

killed eighteen days after operation, the ulcers could be distinctly seen. The walls of the stomach, which formed the floor, were thicker than the surrounding portions, and on microscopical examination it was evident that cicatrization of the same was beginning. The edges were firm and contracted. Externally there was no evidence of any puckering-in of the serosa, simply a line of organizing plastic lymph covering the Lembert sutures.

The seventh dog, killed thirty days after operation, showed both on the anterior and posterior walls internally, corresponding to the deligated areas ulcerations of the same character as those just described, resembling those seen clinically in the human being. A loop of the Lembert suture presented in the bottom of one of the ulcers; the serosa on the external surface was continuous in both, hiding all stitches. The edges of the ulcer were also firmly contracted, and there was evident thickening of the stomach wall over the ulcer.

None of the above dogs showed any signs of peritonitis, and had no hemorrhages, showing that the thrombosis beneath the deligated masses had been sufficient to prevent any hemorrhage.

In all of the dogs thus far spoken of, the method of picking up and tying off the entire thickness of the stomach wall about half an inch from the edge of the ulcer and reinforcing this with a row of Lembert sutures on the serous side was uniformly used. Between the third and fourth dog, two dogs were operated upon, both of which showed the necessity of using these reinforcing sutures. In one dog death occurred on the fourth day after operation from a perforative peritonitis, the gastric juice having apparently digested off the ligated area and caused a perforation in the stomach wall corresponding in size to this area with a resulting perforative peritonitis.

In a second dog, also operated upon without reinforcing serous (Lembert) sutures, the animal was killed upon the fourth day, and it was found that a perforation similar to the one just described was be-

ginning and unquestionably would have caused death within a short time.

15. CONCLUSIONS. 1. The result of the practice of the best modern surgeons warrants the statements previously made on theoretical grounds that only operative interference can save the lives of a part of the patients affected with bleeding ulcers of the stomach, viz., those not improved by internal medicine.

2nd. Surgical intervention is to be recommended firstly in small repeated hemorrhages, secondly in severe ones, occurring more than once, especially if more than 500 c.c. is lost at each hæmatemesis.

3rd. A single copious hemorrhage is not necessarily an indication for operation.

4th. In the ulcers at or near the pylorus, pyloroplasty (Heineke-Mikulicz) is ideal. It makes local treatment possible and gives all of the benefits of gastro-enterostomy and is safer.

5th. Cauterization and curetting of the ulcer should give place to resection wherever the stomach-wall can be reached from without.

6th. If adherent posteriorly and at ends of stomach, cauterization, curettement and ligature *en masse* are best substitutes for excision.

7th. Ligature *en masse* is shown by our experiments to endanger perforation, except when supported by external sutures.

BIBLIOGRAPHY.

1. Archiv. f. Klin. Chir., 1888, Bd. XXXVII, p. 79.
2. Bost. Med. J., 1889, p. 38.
3. Arch. f. Klin. Chir., 1889, Bd. XXXIX, p. 833.
4. Trait. Chir. des Affections de l'estomac, p. 132.
5. Revue de Gynecol., 1897, p. 113.
6. These, Trognon, Paris, 1893.
7. Arch. f. Klin. Chir., 1894, Bd. XLVIII, p. 787, and Centralbl. f. Chir., 1894, p. 1254.
- 7a. Annals of Surgery, Aug., 1894.
8. Bost. Med. and Surg. Journal, 1897, p. 54.
9. Savariaud. These de Paris, 1898.
10. Berl. Klin. W., 1896, p. 847.
11. Med. News, 1896, p. 284.
12. Proc. Germ. Surg. Congress, 1897.
13. These de Marion, Paris, 1897, and Proc. Germ. Surg. Congress, 1897.
14. Presse Medicale, 1898, p. 31.
15. Same as 14.

16. Savariaud. These de Paris, 1898, p. 128.
17. Phil. Med. Journal, Apr. 29, 1899, p. 929.
18. Same as 16.
19. Proc. Germ. Surg. Congress, 1897.
20. Corresp. f. Schweizer Arzte, p. 610, 1898.
21. N. Y. Med. Jour., June 11, 1898.
22. London Lancet, Aug. 3, 1895.

THE INFLUENCE OF BIOLOGICAL RESEARCH ON SURGERY AND MEDICINE.*

BY W. J. FERNALD, M. D., RANTOUL.

Every man who takes up the study of medicine from the highest motive—that of love for the work—has indulged in the vague belief that it is an exact science; and that by mastering the principles underlying it he may not only bring relief to those who suffer, but achieve a name for himself in the scientific world. But no sooner has he begun its study than he runs counter to the universal opinion of the profession that it is *not* an exact science and never can be; that it is indeed less a science than an art; while further investigation shows that, until recently at least, medical literature was but a vast collection of empirical truths, supremely important for the future of the science, but from most of which no law for his invariable guidance has yet been deduced; therapeutic nihilism ran riot through every page of its literature; while books were filled with countless medical facts but were destitute of medical principles.

The conscientious student at this stage then is appalled. Each altruistic hope fades into the mist of acknowledged nihilism, and he realizes that his success is not a question of the application of definite laws, but a question of judgment without time in many cases to form a correct judgment; that any hour of the future may bring him a moment pregnant with the fate of a human life and a human soul; and that that life with all its possibilities, depends upon the correctness of his judgment of the relative importance of a multitude of empirical truths directly and in-

Read at the 49th Annual Meeting, Cairo, May 18, 1899.

directly bearing on that case, instead of the application of well known scientific laws.

And the earnest student of medicine as a science turns again to the dream of his student days, asking himself whether the Creator of the universe who has hung the stars in the heavens by law easily comprehensible by the mind of man; who has rapped the laws of the physical universe in the atom and molecule so loosely that the exact science of chemistry has sprung from their decomposition; who has sent the carpenter of Galilee for the salvation of man's spiritual nature, has left him on his physical side destitute of laws comprehensible by his intelligence, by the knowledge of which he may escape the disease and pain which their ignorant violation has brought upon him.

The affirmative answer to this question as to whether medicine will ever be an exact science is found in the startling advance in medical knowledge in the closing half of the 19th Century, and the immensity of the efforts put forth still to advance that progress. The specific discoveries of the past century, such as anæsthesia, the cellular structure of the tissues, and the microbic theory has revolutionized medicine and surgery. The discoveries made in laboratories have worked kaleidoscopic changes in professional opinion, and at the same time have lengthened the span of life, reduced materially the suffering of the race and introduced the apparently miraculous into modern science. For the apparently impossible things of yesterday have become not only the possible, but the common things of today. But if the progress of surgery and medicine in the way of specific achievement has been great enough to astonish him who contemplates it, its progress along general and fundamental lines has been immeasurably greater. For the greatest specific discoveries marking the century have more than a specific importance—are more than the establishment of empirical truths; each has revealed its foundation in the transcendental truth, "The

unity of truth and the universality of law." Each specific discovery that has profoundly modified medicine and surgery has been an application of this universal law.

The transition from the specific and empirical to the fundamental in professional knowledge has been coincident with the transition from the specific and incidental to the fundamental in professional study, and marks the evolution of professional thought.

The first idea of medicine was no doubt a grossly anatomical one. A pain experienced was referred to some anatomical region, as an arm or a leg. The next idea was, it may be, a therapeutic one calculated to relieve that pain. Perhaps the third was a physiological one originating in man's curiosity concerning the phenomena of taking food and excreting waste products. Out of these extremely crude primitive ideas was developed in the course of years the accurate knowledge of anatomy, physiology and materia medica we now possess. The fourth fundamental branch of medical study, chemistry, was not added until that science was found to be inextricably entangled with the complete appreciation of physiological function. Here for many years rested the foundation of medical education. These sciences were and are the *sine qua non* of a medical education.

But important as they were they did not answer the questions of etiology, pathology or treatment. And they never can answer them alone. Every anatomical truth having one end attached in a muscle, bone or nerve was only half a truth; one end was left unattached; every physiological truth with its determined end springing from some organ and its function was but half a truth; the other end made no connection. It was so with every chemical truth, and the facts of materia medica. The investigations hitherto made only illustrated the truth that the thing of least importance had been shown; that the unconnected ends of established truths held the story of the final truth for which

the scientists of the ages had searched in vain.

That ultimate truth, the demonstration of whose laws was found to be the latest problem presented to a man for solution, was the truth underlying the greatest question given to man for his study—the question of life and the law of its manifestation.

Taking up the unconnected ends of scientific truths hitherto made known, these threads were woven by modern scientists into the sublimest of all the sciences, biology, or the laws of life. In this latest view of demonstrable truth culminated not only the entrancing beauty of the highest truths, but also the intense practicality of the highest truth as related not only to our own but to universal science, and today the progress of medicine is the progress of biological knowledge. Into the warp and woof of that science has been woven the worth of the world's greater thinkers. In its development Schleiden, Huxley, Tyndal, Spencer, Jenner, Pasteur, Lister, Cohnheim, Virchow and others as great, have written their names by the side of Kepler, Newton and La Place.

It is no dream nor a fanciful figure of speech that these men have, in addition to the effect of their labors on general science, taken medicine from the realm of empirical art and placed it, at least partially in the realm of the exact science; and better still have given us the hope that the whole subject will in time become an exact science.

Previous to Schleiden's day there was no exact law laid down in medicine. But with his discovery of the cellular structure of plants he simultaneously laid the foundation of biological science and exactitude in one department of surgery. That biological discovery made by a botanist, made possible the science of modern histology and cellular pathology.

In the karyokinetic change of the cell is written the story of the regeneration and repair of wounds. Of immeasurably greater importance is the truth that the story of the cell is the story in miniature

of all organic life whatever. This histological idea in connection with another biological truth, that of the development of the embryo in three layers, and that cells reproduce themselves in kind, formed the basis of Cohnheim's theory of tumor genesis; and in Cohnheim's law broke the first rays of the dawn of exactitude in surgery. For microscopic examination of tumor tissue makes exactitude of diagnosis in tumors the rule. And the knowledge gained from the behavior of these cells make the law of treatment so exact that the early removal of a malignant growth, before metastatic infection has occurred, is the only treatment considered. The treatment of benign growths is equally clear and exact.

But if the exact diagnosis of a malignant growth rendered an early operation imperative, the next biological discovery extended the possibility of a successful operation almost beyond the bounds of belief by bringing the operation wound into the domain of exact science. This was the demonstration of the agency of microscopic organisms as the cause of wound complications. This phenomena of biology was the reverse of the constructive force residing in Schleiden's cell. It was a revelation to us that the battle of life is not wholly between the individuals of the organic world we can see and feel; but that the body, being a form compounded of microscopic pieces of protoplasm, was thereby rendered peculiarly susceptible to the attacks of antagonistic micro-organisms. Nothing teaches us more respect for the infinitely small than the effects following the discovery of pathogenic micro-organisms and the demonstration of the law of their action. From that day surgeons ordered their professional lives strictly with reference to bacteria, hospitals were remodeled and new ones built along microbic lines, and the whole theory and practice of surgery was revolutionized in a degree the magnitude of which was never surpassed in any branch of science. Wound treatment was transformed as by the touch of the magician's wand; and that

which was before an empirical art became a science as exact as astronomy. For of an aseptic wound ideally treated, union by first intention can be as accurately foretold as can the movements of the heavenly bodies.

The first evidence of the transformation of an empirical into an exact science always occurs in some branch of that science. Following that law of transformation exact principles first appeared in surgery as a branch of the general science of medicine. But fundamental truths traverse stem as well as branch; and the fundamental truth above spoken of modified our conception of medicine through the discovery that the etiological factor of many diseases is micro-organic in character.

All philosophical deductions from scientific truths derive their authority from the "Unity of Truth and the Universality of Law." From this postulate arises the explanation of the fact that a truth of today is a truth of all the past and all the future; and that a philosophical deduction from known truths, correctly made, will be illustrated anew by every demonstrated truth related to it.

Many years ago Herbert Spencer taught in his work on philosophical biology that the external surface of the body did not terminate as we commonly suppose, at the muco-cutaneous junction of the lips and anus, but that the skin and mucus membrane being continuous, the mucus membrane in all its indentations and involutions, was, physically speaking, as much an external surface as the skin. At the time this statement was made it had little relation to the subject of medicine specifically considered. It was merely a physical fact related to the subject of nutrition and excretion. But with the discovery of the microbic nature of infection, taken together with the fact that all microbes were external to the body, and could only gain access to the tissues by a solution of the continuity of the external covering, the accurate determination of the external limiting membrane became a matter of large importance. It marked the dividing

line between the infectious and the non-infectious diseases; and consequently the method of treatment. With reference to the microbic theory, Spencer's definition of the external surface of the body was found to be not only a theoretical but a practical verity, for the vast majority of diseases affecting the surface of the body as here defined have since been found to be of microbic origin.

The demonstration of the truth that pathogenic bacteria of divers kinds are the underlying etiological factors alike in wound complications and infectious diseases, brings the treatment of these diverse conditions under one law. For, broadly speaking, the problem presented for solution in either case is the limitation of one form of life without destruction of the other. In the matter of wound infections the solution of the problem was easy. The disease being the product of the conflict between vital forces, the limited surface for absorption made the use of violent poisons destructive of pathogenic organisms possible with safety to the patient. But in infectious diseases involving especially mucus surfaces, those poisonous antiseptics were inadmissible in a strength sufficient to destroy the bacteria. For the extreme facility of absorption characterising mucus surfaces rendered toxic antiseptics equally toxic to the patient. But though the problem as presented in general medicine is more difficult of solution than as presented in surgery, a final solution does not seem impossible. The etiological factors being biological, a biological solution may be looked for, and a remote indication of the method of it may be found alike in philosophical and scientific biology. All over the earth the problem of the limitation of particular forms of life to particular habitats is accomplished without the employment of gross antiseptic clubs. Just a slight change in environment draws an invisible line over which the hardiest races cannot pass and live. If this seems very remote, we have a more practical exemplification of the same principle in scientific medicine. No microbe

is more common nor more virulent than the tubercle bacillus, and yet physiological resistance, aided by early diagnosis and prompt change of climate, has relieved many cases of tuberculosis without the intervention of any toxic antiseptic whatever. That this still is not the only way is demonstrated by the marvelous advance in the therapeutics of that most deadly and intractable of all the microbic diseases, diphtheria, by the use of antitoxine, while the unknown biological principle underlying vaccination has all but rendered small pox extinct.

But if Spencer's definition of the external surface of the body marked the dividing line between external and internal diseases, a careful consideration of it raises the more interesting question still: is there any disease external or internal with any but an external etiological cause? By the definition the only internal structures are those included within the skin and mucus membranes. Disease affecting these structures would be true internal diseases. The question is, does the etiological factor active in producing such diseases ever take its rise within those tissues themselves? I think not. I think it may be shown that from the moment of conception to the instant of death, no force, either constructive or destructive, is generated *de novo* from the true internal structures as defined above; but that every force acting therein, and even those tissues themselves, are the product of transformation of forces entering the body from outside itself. Even the blood of the foetus and mother does not intermingle, but the nourishment from the mother's blood passes through the walls of the vessels as they inosculate in the placenta. And in those cases of infectious diseases contracted in utero, the virus enters the foetus from without; though in that case the infection atrium existed in the damaged walls of inosculating foetal and maternal vessels in the placenta. If this theory is true the etiology of all diseases is simplified to a certain extent, though the simplification does not consist in the determination of any specific cause

of disease. It rather consists in the determination of the place where infection may be looked for.

It has been shown above clearly, I hope, that the science of medicine has undergone an evolution; that the latest stage of that evolution is the study of biology, or the laws of the manifestation of life, both in correlation and antagonism. And that though previous to the stage of biological investigation there was absolutely no exactitude in any branch of medicine, the first great biological discovery placed immutable principles under the science of surgery. And each new discovery of a biological law has contributed anew to exactitude in some branch of the general subject of medicine.

In so doing it has contributed to the destruction of the two chief obstacles to medical progress. One of these Virchow mentioned in his oration on the anniversary of Huxley's birth, when he said that the fact that man was looked upon as a unit instead of a combination of units called cells, was the leading obstruction to the advancement of biological knowledge. The other is the fact that through all the centuries past until now, it was the belief, held not only by the laity, but by the vast majority of scientists as well, that life was not the manifestation of law or laws, but was an inexplicable gift of the God of the Heavens. That while it was never manifested outside of a physical form, it, in its manifestation, had no part in the laws by which that form was established. So long as these two beliefs entered fundamentally into scientific thought, medical and biological progress was impossible. Every student of medicine knows that in the last analysis the state of health is the unobstructed operation of the laws of life; and that disease is but the obstruction or modification of these laws. And that therefore the prime essential in treating disease is a knowledge of the laws of life. But so long as life was held to be devoid of laws; so long as it was supposed to be a miraculous phenomena superposed upon the law-governed physical world, know-

ledge of supreme importance could not even be imagined.

But in the development of chemistry it was seen that the doctrine of revelation, that man was created out of the dust of the earth was not a dream, but a scientific verity; here was first seen the truths that on one side at least life was connected with the physical.

With the two visions through the microscope, of the unicellular protozoa, and Schleiden's discovery of the cellular structure of organic tissues, taken in connection with the truth that the unicellular protozoa had all the fundamental functions common to the higher organisms, there was laid the foundation of a scientific and philosophical doctrine which, while it shocked the world with the magnitude of its import, at the same time modified every science and invested every truth, whether demonstrated in the past or to be demonstrated in the future, with a new importance.

This was the doctrine of evolution, as propounded by Darwin and Spencer.

Beginning with the fire nist that filled the heavens Spencer taught with matchless rhetoric and resistless logic that the laws of life had their beginning there; traced them to the culmination of their beauty, first in the stars that are hung in the heavens; and next in the glowing color of the lily and the rose; and showed that these laws, passing through star and flower, reached the climax of their splendor in the brain of a Shakespeare which conceived a Hamlet. Here then, in the doctrine of evolution as proclaimed by Spencer, was the most complete and exhaustive attempt at tracing the laws of life from beginning to end; and I believe that the student of the *principles* of medicine and surgery can derive much insight into those principles by the study of philosophical biology.

For the connection between the doctrine of evolution and medicine is not as remote as it seems. If we cannot reach any fundamental conclusion concerning disease until we have reached a fundamental understanding—not of life itself, but of the

laws of it—(and we cannot,) we must admit that medical progress is impossible if there be no laws of life to be understood. If there be no biological laws, pathological laws are impossible. In the absence of both, medical science is an impossibility.

In the determination of this question then each student of the ultimate principles underlying the science of medicine is irresistibly driven to a decision for himself of the most gigantic question that ever vexed the souls of men—the basis of the struggle between science and religion. The one side holding that the phenomena of the universe are the direct results of the spontaneous acts of a Creator without the intervention of law; the other that every phenomena is the product of, and is explicable by, either known laws or unknown laws possible of discovery; and that the highest expression of that law is laid down in the doctrine of evolution. The struggle brought to pass by the effort of each side to establish the truth of its particular dogma has often disgraced civilization. It has prepared the torture chamber for the student; and to epithet "materialist" has been replied "Superstition."

But truth, like life, is the product of conflicting forces and equally illustrates the law of the "survival of the fittest." And out of the conflict between science and religion error has been stripped from the shaft of truth that has ever risen higher and purer still. In developing its full force to overthrow its adversary each side has blessed the word with its richest benison. The scientific world, to establish the truth of its position, has developed the microscope, the telescope, the test tube and all the instruments of precision, by which truth is demonstrated; and the partisans of the doctrine of special creation, with its central thought of divine love, have builded hospitals, churches and schools.

As to which side of the controversy the medical profession as a whole has either consciously or unconsciously espoused, the question is determined by the study of biology. The intervention of law being excluded by the special creation hypothe-

sis, biological investigation would be excluded also.

Biological study presupposes the belief that life is the product of law.

That that decision can be made and do no violence to christian principles is made plain by the "Unity of Truth." If truth is a unit then demonstration and revelation will not conflict.

Transcendant as has been the practical effect of biological study on medicine and surgery, its mightiest effect has been the demonstration that principles underlying the phenomena we study, and that medicine may be made a science as well as an art.

The highest scientific statement of biological truth is found in the doctrine of evolution. The truth underlying that doctrine is that organic life is the climax of the operation of physical laws; and underlying this still rests the transcendental doctrine of "The Unity of Truth and the Universality of Law." In these ultimate truths we have at once the explanation of the fact that medical truths are the last to be unified into an exact science, and the hope that such unification is not far distant from us. If life is the climax of the operation of physical laws, and the law of its manifestation is a unit, the progress of exactitude must be, as it has been, from the simple to the complex. And out of the unity of its law is born the hope that by tracing it from the simplest manifestations upward at last we may understand it in the climax of its complexity. If this be so we must broaden our studies. We must become physicians who understand physics as well as physic.

In fundamental truths we will find a larger meaning in specific truths. The most stupendous revelation of the microscope was neither the microbe nor the cell, but this: that the law of life was one for the macroscopic and microscopic worlds. That in the battle between the microbe and the man lay revealed the primordial truth that life is the product of a battle which we call the "Struggle for Existence;" that the doctrine of physiological

resistance is but a restatement in medical terms of Spencer's law of the "Survival of the Fittest" and Darwin's "Natural Selection." The medical side of this truth is that disease is not an entity as life is; but that it is only an incident in the operation of the laws of life; that the deepest truth we can study even when we study pathology is the law by which life is manifested and survives. The pathological field of observation in the dead house is but the wreck-strewn battle field on which was tested to the end the strength of antagonistic vital forces.

DISCUSSION.

DR. FRANCES DICKINSON, Chicago: This paper has been very instructive to me. It has carried us over the sciences rapidly and interestingly. It will be well for us to develop our methods, as the result of our studies, along the lines suggested in the paper. The emphasis he has placed upon a knowledge of biology and of physics should be carried back to every medical college that does not require for entrance studies those branches. A knowledge of them is absolutely essential for correct thinking and a proper groundwork for future practice.

DR. D. W. GRAHAM, Chicago: I desire to commend the paper; I think it is a remarkable one. I wish every medical society could have more papers like it, and I hope the members of the Society, if they read no other paper in the Transactions, will read and re-read this one.

SOME CONSIDERATIONS OF EPILEPSY.

BY DANIEL R. BROWER, A. M., M. D., LL. D.

Abstract of an address made at Illinois Conference of Charities, Bloomington, Nov. 20, 1899.

Epilepsy is a disease that has been recognized and accurately described by both profession and laity from the most ancient times. Hippocrates, four hundred years before the Christian era, gave considerable attention to it, and has left for our edification an elaborate argument upon the then controverted question as to whether or not it be an infliction from the Gods, and answers the question in his argument in the negative. No more striking descrip-

tion of the disease has ever been written than that by Lucretius, in "*De rerum natura*," about seventy years B. C. But, notwithstanding its so early recognition in the history of the world, the knowledge that has been accumulated that is beneficial to the victim is not proportionally great. Epilepsy has for its special symptom a sudden and complete loss of consciousness that may be but for a few minutes and may occur several times daily, or but a few times in a long life. Between these seizures the individual may be just as capable as any one in the enjoyment of life and in the pursuit of its ordinary avocations. Indeed, it is sometimes associated with genius of the rarest kind, as witness the music of a Handel, the comedies of a Moliere, the poetry of a Petrarch, the military genius of a Cæsar, and the religious enthusiasm of a Mahommed. And, on the other hand, it results in insanity in probably ten per cent. of the cases.

A very great deal has been done by scientific medicine in recent years in the investigation of the causes and in the search for relief for these unfortunate victims, yet the number that can be successfully treated in their own homes is small. And even of the number that might be benefitted by such scientific treatment, there is only a minority that can afford to avail themselves of the same.

Epilepsy is a common disease. Various estimates have been made as to percentage ranging from one in a thousand persons to one in five hundred, and how best to care for these victims of a vicious inheritance is the great problem. In my opinion philanthropic people have given too little attention to the consideration of this important topic. We have easily accessible to all our superb institutions for the care of the insane, the blind, the deaf, and the dumb, and the feeble-minded, but the epileptic has no place, and but few can receive proper treatment at their own homes. The ordinary hospital will not receive them or will care for them only sufficient to bridge them over some special emergency,

and many of them drift into our poor-houses, who might become largely self-supporting, and be in the enjoyment of such social, educational and religious privileges as are within their capacity and to which they are justly entitled.

The first effort made at a proper solution of this question was some fifty years ago in the village of La Force, near Lyons, France, and this little effort was enlarged upon and improved by the philanthropic clergymen who founded the Bethal epileptic colony in Westphalia, thirty years ago. This institution, beginning with four, has gathered together over a thousand persons residing in over sixty houses scattered over a large farm and supplied with numerous and varied employments. They have a dairy farm, a garden, all kinds of workshops; there are cabinetmakers, painters, printers, bookbinders, blacksmiths, and a happy, prosperous and almost self-supporting community. Nine other epileptic colonies, with this one as the model, have been established in Germany, one in Zurich, in Switzerland, and one in Holland. In our own country one is in successful operation in Gallipolis, Ohio, and one in New York, the Craig colony. In California at the Sonoma Home for Feeble-Minded Children, buildings are about being erected for the same colonization purposes, and Massachusetts, Pennsylvania and Wisconsin are struggling with the same important problem. The State of Illinois can no longer afford to neglect these people, and there should be established somewhere in this State where the climatic conditions are favorable, and land can be had in abundance, and transportation is easy, a colony for epileptics. At least a thousand or fifteen hundred people can be gathered together in such a colony, and an acre of land to a person should be the minimum allowance, and if the State will establish this philanthropic institution, there may be some hope in the near future, not only of providing these people with the comforts of life to which they are entitled, but to make them largely self-supporting, and also to diminish the rate of increase of this unfortunate disease in the community.

The Illinois Medical Journal

PUBLISHED MONTHLY.

Official Organ of the Illinois State Medical Society.

Committee on Publication:

E. W. WEIS, M. D., Chairman, Ottawa.
H. N. MOYER, M. D., Chicago.
G. N. KREIDER, M. D., Springfield.

All communications should be addressed to E. W. WEIS, Secretary, Ottawa, Ill.

All remittances for subscriptions should be sent to Dr. G. N. Kreider, 522 Capitol Ave., Springfield, Ill.

The Society does not assume responsibility for any statements or opinions published in this journal.

Entered at the Postoffice at Springfield, Ill., as second-class matter.

Springfield, Ill., December, 1899.

CAUTION! CAUTION!

The new law regulating the practice of medicine and the State Board of Health charged with the duty of enforcing it, are just now going through the stress and storm incident to all changed conditions. It is not at all surprising that both are being attacked by Bland and his Illinois Union Medical Association. That Bland and his ilk are attacking should be sufficient reason for all honorable medical men, and especially members of the State Medical Society, to use the greatest circumspection in speaking of these matters. Expressions made for use in the public or medical press should be especially guarded as they will be quickly seized and made use of by the mercenaries to the detriment of all honest practice and beneficent laws. No one will maintain that the present law is perfect. Indeed, it is concededly imperfect, and should be amended at the next session of the legislature. The amendments which the members of this Society desire to have made are designed to make it better and more stringent. The amendments which Bland desires to have made

are, to wipe it off the statute books entirely and to substitute nothing in its place. Which horn of the dilemma will our members take? As regards the State Board of Health the same remarks could be made. Let reforms in its personnel and its modes of procedure be made by its friends, and especially by the State Medical Society, but do not innocently assist in turning it over into the hands of revolutionists who would soon apply the guillotine. Members of the Society will be pleased to know that President Moyer utterly repudiates the statement made in the daily press that he made statements derogatory to the State Board of Health. The remedy for this species of guerilla warfare is the thorough organizing of the profession, educating the honorable men so that they will not fall into the traps laid by Bland, and this can only be accomplished through the State Medical Society. K.

In the daily press of Chicago there has recently appeared many charges of a criminal character, reflecting more or less upon some members of the State Board of Health, and considerable adverse criticism upon the person and official integrity of the Board.

With one exception the more serious charges are not supported by evidence worthy of recognition, and the exception is supported by affidavit which directly charges Dr. Meyerovitz with demanding \$75.00 to procure a license to practice from the Board. Dr. M. indignantly denies the allegation and says that there is not a word of truth in it.

Regarding the charges that money was extorted from quacks and others promising immunity from legal prosecution it is hardly to be thought that if such method has been adopted by any supposed officer

of the law that it was done by the connivance or knowledge of any member of the State Board of Health, or of any one identified with it in an official capacity.

From our knowledge of the Board the profession can feel assured that these charges will be fully investigated and such action taken as the circumstances will warrant.

W.

STREET RESTAURANTS.

One of the features of our modern city life is the street restaurant, where, especially during the later hours of the night a meal more or less complete can be obtained. Whether these venders of eatables are a blessing to the community in which they ply their trade is very much of a question. The ordinary city street is in a filthy condition. Horse droppings, tuberculous human sputum and other unmentionable particles constituting the filth of the highway, must certainly be dredged on the waffles, pies and tamales while they are stored in the flimsy receptacle of the vendor, or before they reach the stomach of the rounder. In these days when scientists are seeking out all the ways of preventing disease the possibilities of the way-side restaurant for infection should not be overlooked.

K.

SHALL HISTORY BE REPEATED?

Almost without exception every charitable institution in this State had its inception in the philanthropic heart of the medical profession. Physicians of large experience witnessing the miseries of the blind, the insane and idiotic have sacrificed their time and strength in educating the public and the legislature to relieve their miseries. A dozen splendid buildings in different parts of the State stand as monuments to the unselfish labors of

physicians, usually members of the Illinois State Medical Society.

In return for these unselfish labors what has been the attitude of the politicians to the organizers of these splendid charities? How many of the superintendents have been taken from the ranks of the State Society? What has been the character of many of these men and how fit have they been to discharge the philanthropic and scientific duties imposed upon them? How much credit have they reflected on the profession of the State?

For many years various members of our Society have advocated the establishment of an epileptic colony. Dr. Maxwell, of Mt. Carmel, at the meeting in 1893 read a valuable paper on this subject. Recently at a meeting of a State conference of public charities held at Bloomington, Dr. D. R. Brower and Dr. Hugh T. Patrick of our Society appeared and gave valuable aid to those who are laboring to secure proper care of the epileptics. A preliminary appropriation has already been secured and the next legislature will probably establish a colony on the New York plan. After securing this charity, what shall be the attitude of the State Society towards it? Shall we sit supinely by and see its management pass into political and incompetent hands? Shall the superintendent be a political doctor, skilled with a pull, but ignorant of the moral and scientific requirements of the position? Shall some of the disgraceful proceedings of the other institutions be repeated? Shall some moral and medical pervert be placed in a place demanding the highest moral and scientific standing? Or will not the State Society arouse itself and demand its prerogative of naming the men who will be a credit to humanity, to the State and the profession?

K.

ORGANISE—UNITE—CENTRALIZE.

The medical profession yet remains palpably negligent of its splendid opportunities and seemingly careless of its grave, indeed urgent, responsibilities to civilization, in its sloth in mustering its units into a coherent corps which will possess that power and command that respect to which it is entitled by its lofty aims and self-sacrificing labor. There are too many counties in the Union that yet have no medical societies; in too many of the states the organizations, if they exist, are lacking in virility. United in a firmly correlated and closely conjoined series of associations, our profession can imperatively demand those well-recognized reforms that will inure to the benefit of the nation, which now, on bended knee, we but faintly suggest to the law-making powers of both large and small communities. A blind man may see that in the coming century individualism will have small place in the great undertaking of commerce, the wonderful development of industry, and the increasing efficiency of labor. Brilliant deeds will be accomplished by organizations of imposing magnitude, and by huge aggregations of capitol and of labor. This is the living lesson of the hour, from which may safely be predicted the future course of industrial evolution, at least for a generation. Shall those to whom is perforce entrusted the complicated problems of life and of disease be satisfied to halt in a stage of incomplete development, while the kings of industry lead on into operations of undreamed of magnitude? The untarnished honor and eternal chivalry of our noble profession cry a thundering "No!" We must be up and doing or the vanguard of progress will find us mired in the alluring shadow of careless indolence.. No matter how admittedly meritorious, it is

not enough that a physician shall attend thoroughly to his own little work and duty. So much, indeed, must he do in common with his fellow-man, but there is for him yet more in life. If the medical profession shall not openly and courageously and unitedly lead in the education of the nation to the possibilities of stamping out contagious disease and to the tremendous saving of human life yet to be secured through the means of improved sanitation, who in the name of Science will? Every county in the Union must have a live society in direct relation with its state organization, and these latter in their turn must maintain some definite and cordial affiliation with the one great central representative body—the AMERICAN MEDICAL ASSOCIATION. No better time to perfect this work can be found than *now*. Let every physician who reads the *Journal* think very seriously of his own individual duty to his profession and to his country. If his county and state are not already provided with good live working societies, let him earnestly talk to his professional friends and neighbors, that they may set in motion the wheels of organization. If his societies are tame and languishing, let him conjure up means to put into them the fire of progress in medicine and the zeal of doing useful deeds for their own sake. He will not fail of his reward who does this with a pure conscience; nor will his guerdon be but vanity.—*Journal A. M. A.*

Dr. Frederick Tice, Chicago, has tendered his resignation as head physician of the Dunning Asylum. He contemplates two years' study in Europe.

Dr. D. A. Payne, Chicago, has resigned the chair of associate professor of ophthalmology, in the Chicago Clinical School, and gone south on account of ill-health.

County and District Societies.

MILITARY TRACT MEDICAL SOCIETY.

President, E. M. Sutton, Peoria.
 Secretary-Treasurer, C. B. Horrell,
 Galesburg.
 Next place of meeting, Kewanee.

At the last meeting of the McLean County Medical Society the following program was presented: "Antenatal Influences," Dr. E. K. M. Taylor, of Leroy; "Inflammation," Dr. T. R. Mullen, of Bloomington; Paper, by Dr. S. B. Cox, of Hudson.

CHICAGO GYNECOLOGICAL SOCIETY.

President, T. J. Watkins.
 Vice Presidents, Reuben Peterson, L. Frankenthal.
 Treasurer, A. H. Foster.
 Editor, Chas. S. Bacon.
 Pathologist, Emil Ries.
 Secretary, W. H. Rumpf.

The Bureau County Medical Society met in Princeton November 9th. Much interest was shown by the members present. An all day session was held. Four interesting papers were read and thoroughly discussed. The attendance was twenty-two. The officers of the Society are: President, S. W. Hopkins, Walnut; 1st Vice President, B. F. Landis, Tiskilwa; 2nd Vice President, M. H. Blackburn, Dover; Secretary and Treasurer, A. E. Owens, Princeton.

BRAINARD DISTRICT MEDICAL SOCIETY.

This society held its fall meeting at Lincoln, Logan county, October 26. Interesting papers which provoked active discussion were read by C. E. Black, of Jacksonville, on "Necrosis of the Tibia;" by F. P. Norbury, of Jacksonville, on "Localization of Cerebral Hemorrhage," describing particularly the interesting case of Dr. L. A. Frost, and by G. N. Kreider, of Springfield, on "Stone in the Urinary

Bladder and Pelvis of the Kidney." Others presented clinical cases. The mid-winter meeting will be held in Jacksonville. M. Lee, of Atlanta, and J. T. Woodward, of Lincoln, joined the society at the Lincoln meeting.

The District Medical Society of Central Illinois held its twenty-fifth semi-annual session at the St. James Hotel parlors in Pana Tuesday, October 31st. The attendance was greater than at any previous meeting. Every paper on the program was read and was thoroughly discussed, and the interest was excellent. The program was:

Mastitis in Puerperal Women, Theodore Thompson, Shelbyville, discussed by Drs. Miller, Connor, Huber, Carroll, Eddy, Sparling, Nelms, Catherwood, Humphrey and Haynes.

Calculus in the Kidney and Urinary Bladder, Geo. N. Kreider, Springfield, discussed by Drs. Connor, Spicer and Nelms.

Prophylaxis of Typhoid Fever, J. H. Miller, discussed by Drs. Catherwood, Simpson, Huber, Rivard, Sparling, Eddy, Whitten and Nelms.

Microscopic Examinations of the Blood in Diagnosis of Disease, S. E. Munson, M. D., discussed by Dr. Spicer and others.

Some Points in the Diagnosis of Nervous Diseases, Everett J. Brown, Decatur.

Intestinal Auto-Infection, G. J. Rivard, Assumption, discussed by Drs. Thompson, Connor and Carroll.

The following were admitted to membership:

J. H. Williamson, Assumption, graduate Missouri Medical College.

S. H. Corley, Tower Hill, graduate Missouri Medical College.

J. P. Simpson, Palmer, graduate Missouri Medical College.

F. J. Bratz, Moweaqua, graduate College Physicians and Surgeons, Chicago.

J. M. Little, Rosemond, graduate Missouri Medical College.

B. B. Griffith, Springfield, graduate

Rush Medical College, Chicago, and College Physicians and Surgeons, N. Y.

C. M. Bowcock, Springfield, graduate Jefferson Medical College, Philadelphia.

J. A. Egan, Secretary Illinois State Board of Health, graduate Chicago Medical College.

The following physicians were in attendance:

E. J. Brown, Decatur.

C. L. Carroll, J. N. Nelms, Secretary, and C. R. Spicer, Taylorville.

G. N. Kreider, C. M. Bowcock, B. B. Griffith and S. E. Munson, Springfield.

G. J. Rivard, Assumption.

W. H. Sparling and F. J. Bratz, Moweaqua.

G. W. Fringer, J. Huber, R. C. Danford, F. J. Eberspacher, J. J. Conner and J. H. Miller, Pana.

J. H. Williamson, Assumption.

W. H. Geddy, Ohlman.

T. J. Whitten, Nokomis.

T. L. Catherwood, W. J. Eddy and Theo. Thompson, Shelbyville.

J. P. Simpson, Palmer.

E. P. Staff, Ramsey.

J. Wills, Beecher City.

E. D. Kerr, Brunswick.

Moses Haynes, President of the Society, Bingham.

C. B. Johnson, President of the State Board of Health, Champaign.

Dr. J. A. Egan, Secretary of the Illinois State Board of Health.

E. J. Brown's paper was referred to as one of the best presented, but owing to the lateness of the hour the discussion of it was not taken up.

J. A. Egan, of the Illinois State Board of Health, was introduced, and gave a short talk on the work of the Board in the matter of preventing the spread of contagious diseases.

C. B. Johnson, of Champaign, President of the Illinois State Board of Health, was introduced, and addressed the meeting at some length, as to the work done of late in the suppression of quackery, magnetic healers and christian scientists.

The society adjourned to meet in Pana in April, 1900.

MACOUPIN COUNTY SOCIETY.

The semi-annual meeting of the Macoupin County Medical Society was held in the Masonic Reading Room, Carlinville, Ill., October 17, 1899.

Meeting called to order by Elias Davis, Nilwood, President pro tempore.

Present, F. C. Barto, Plainview; Elias Davis, Nilwood; E. K. Lockwood, Virden; H. W. Gobbele, Greenfield; Chas. A. Allen, Lowder; Dr. Barcus, L. H. Corr, J. S. Collins, C. J. C. Fischer, J. P. and J. Palmer Matthews, and J. P. Denby, Carlinville.

Minutes of previous meeting read, corrected and approved.

The names of J. P. Denby, graduate of the Marion Simms College, class of '98 and Chas. A. Allen, Barnes' Medical College, class of '96, were proposed and elected to membership.

Dr. Fischer reported a female having suffered a severe blow in abdomen, followed by hemorrhage from rectum and uterus. Tenderness and swelling over ovarian region supervened with fever.

Drs. Bleuler and Denby reported a woman 35 years old, three months pregnant, first seen suffering with uncontrollable vomiting. Abortion took place on the fourth day, followed by tympanitis and peritonitis, and death on the tenth day. A post mortem revealed an invagination of the ilium four inches long at the ilio caecal valve, with gangrene of the gut.

Dr. J. P. Matthews reported a cerebral apoplexy due to arterio-sclerosis in a woman 61 years old.

The afternoon session was called to order by President Collins, and the following papers were read:

Tubal Pregnancy, E. K. Lockwood, Virden, supplemented by the exhibition of a ruptured Fallopian Tube, with a six weeks' foetus in situ.

Dr. H. W. Gobbele, of Greenfield, read a paper on "Inflammation."

The board of censors reported Carlinville as the next place of meeting, and as essayists, W. L. Penniman, Shipman; A. C. Corr, Carlinville; J. P. Denby, Carlinville.

ville; C. A. Allen, Lowder, Sangamon county.

F. C. Barto, of Plainview, reported a case of snake bite which was treated classically with whiskey as a nerve stimulant. Dr. Matthews said whiskey was a direct antidote to the snake poison, while Dr. Corr said the poison was instantly diffused in the system and that alcohol should never be used in medicine.

Society adjourned till the 3rd Tuesday in April, 1900.

PROCEEDINGS OF THE ÆSCULAPIAN SOCIETY
OF THE WABASH VALLEY.

The 53rd annual meeting of the Æsculapian Society of the Wabash Valley was held at Paris, Ill., October 26th, 1899.

The meeting was called to order by the President, Dr. J. D. Mandeville. Seventy-five members were present (nearly one-half of the entire membership). The minutes of the semi-annual meeting were read and approved. The reports of the Secretary and Treasurer were read, and the report received. The President then read his annual address. He spoke of his twenty-five years' connection with the society, and referred to the pleasant relations he had enjoyed with the members, which had been to him very profitable. He followed briefly the historic changes that have taken place in medicine for the last thirty-eight hundred years. He referred to the high character of the members of the Æsculapian Society, and highly commended those who can carry the quality of sympathy to the bed-side of their patients.

The second number on the program was a paper by Dr. Joseph Hall, of Westfield. He said: "More deaths result from pneumonia in temperate regions than any other disease except consumption."

The etiology and clinical features were referred to, and he advocated the use of cold applications during the pyrexia, and the lancet, the latter especially with robust patients.

The paper was received for discussion. Dr. Weinstein said: "I try in a case of this kind to find out what is the matter

with my patient. I study his physical characteristics, to see if he has anything about him that will in any way affect the progress of the disease.

Cold applications are preferable to hot ones. I commend the use of the lancet in many cases."

Dr. W. A. Buchanan said: "According to my observation and experience pneumonia has become rather a rare disease in this locality. The draining of the soil, building of more comfortable homes, the people wear better and warmer clothing, and I think, are much more temperate in their habits and ways of living, with much less exposure, together with the improved sanitary condition of the town and country have almost driven the disease from this locality. The percentage of people who want for good wholesome food and comfortable clothing in this town and country is very small."

Dr. Hall closed the discussion.

The Society adjourned to 1:30 P. M.

Dr. S. J. Young opened the afternoon session with a paper on Anæsthesia. The essayist said that the subject was of sufficient importance to engage the attention of a specialist, and there should be in every community one or more physicians who make it a special object of study. The doctor referred to his experience of fifty years as an anæsthetist, with many thousands administrations of chloroform and ether, and he had never lost a case. He thought that more of the anæsthetic was given in many cases than was necessary, and he laid great stress upon the desirability of the doctor securing the confidence of his patient before beginning the administration of the anæsthetic. The anæsthetizer should never be interfered with.

The paper was received for discussion.

Dr. McKennan said: "I commend very highly the methods suggested by Dr. Young in his paper for giving an anæsthetic. The ripe experience of fifty years certainly weighs heavy in the balance in favor of his assertions. But I cannot believe that all the accidents from chloro-

form anæsthesia can be attributed to careless administration. Less than a year ago there was a death from chloroform in this vicinity. A young, healthy farmer about 35 years of age, while piling wood, dropped a heavy stick on his foot, crushing the terminal phalanx of the great toe. His physician was called and attempted to remove with small forceps the fragments of bone. The patient complained of great pain, and laughingly requested that another physician be summoned to give him an anæsthetic. It so happened that two physicians came. The patient laughed, and chided them for being so slow. He was then placed on his back, and on a properly constructed Esmarch inhaler chloroform was slowly dropped by means of a chloroform dropper. His heart seemed to be normal, and performing its functions well. Not more than 20 minims of chloroform had been used, when the anæsthetist remarked, "He isn't doing well."

I turned and felt for the pulse and dropped my ear to his side, but neither touch nor ear could detect any cardiac movement. Artificial respiration and mouth to mouth respiration, with the administration hypodermatically of nitroglycerine, whiskey, strychnine, etc., was continued for hours with no improvement and no hope. This was one of those cases of a strong, robust patient where the heart stopped before the center of respiration was paralyzed. There was no fault with the methods of administering, and the result could not have been predicted."

Dr. Ten Broek said: "I consider the paper a very good one. When I began the practice of medicine the older physicians thought they were doing a young man a favor by allowing him to administer the anæsthetic, and I foolishly acted as anæsthetist for several of them without securing any pay. This was wrong, for the responsibility is greater than that of the surgeon, in any ordinary operation. I have never had a death, but have come very near it in apparently healthy subjects, while I have administered chloroform to very old people who had organic heart

disease. The surgeon who interferes with the anæsthetizer deserves a cursing."

Dr. Baum said: "I desire to call the attention of the society to a 'trick,' if you will allow me to call it such. I learned from observing Dr. Young use when giving an anæsthetic, i. e. pressing the thumbs or fingers in and upwards at the angle of the lower jaw to prevent the tongue from falling back. I do not have to use forceps for that purpose. I want to emphasize what Dr. Ten Broek has said, 'Do not allow the surgeon to interfere when you are giving the anæsthetic.'"

Dr. Barlow's paper on "Rheumatism" excited considerable interest, and was discussed by Drs. Faught, Swafford, Baum, Young, Allen, John Young and Weir. All agreed with the author of the paper that there is no specific cure, and the doctor who gets the case just before the patient begins to recover is fortunate.

Dr. C. S. Price presented a paper, "The Treatment of Self-limited Disease," which was discussed by Drs. Young, Epperson and Swafford.

Section 2 opened with a paper on "Surgical Treatment of Tubercular Peritonitis," by Dr. Luther P. Luckett.

Dr. T. N. Rafferty read a paper entitled, "A Report of a Case of Splenectomy, with Attempted Surgical Cure of Ascites Due to Cirrhosis of the Liver."

The next paper was entitled "Intubation in Acute Laryngeal Stenosis," by Dr. Walker Schell. The doctor thought that intubation was a life saving operation, but if the little patient was extremely debilitated it should not be attempted by an unskilled operator. Better for a novice to perform tracheotomy. Always administer antitoxine before or at the time of the operation.

Dr. Schell's paper provoked a lively discussion as to the merits of antitoxine. The consensus of opinion was in favor of antitoxines. After Dr. Schell closed the discussion, the society adjourned to meet at 6 P. M. in the Masonic Temple, where the annual dinner of the society was served. This dinner is provided for out

of the funds of the society, and all members and visiting physicians are always welcome.

After the dinner, the doctors returned to the Court House to resume the program. The first paper of the evening was read by Dr. Newcomb, "A Plea for Better Antiseptic Precautions in Obstetrics."

The doctor advocated the use of vaginal and intra-uterine douche of hot sterilized water after confinement. This practice was opposed by a majority of the physicians, who followed in the discussion.

Section 3 was opened by Dr. F. H. Swafford with a paper entitled, "The Law in its Relation to Physicians." The doctor dwelt particularly upon the medical expert witness. Some of his advice to the medical expert was "never tell anything on the witness stand that you do not know to be true. Don't answer hypothetical questions. Say you have never had experience along that line and that you do not know."

Dr. Swafford's paper was discussed by Drs. Ten Broek, Barlow, McAllister, S. D. Young, Price, Baum, Newcomb, Buchanan and Kerrick.

A paper on the same subject by Dr. H. C. Kibbie, of Oblong, was read by Dr. Barlow. The paper had special reference to the recent medical practice act passed at the last meeting of the legislature. It was discussed by Dr. C. B. Johnson, Mandeville and Warren. Dr. Johnson spoke of the difficulties that have confronted the Board of Health in its efforts to suppress quackery, and exhorted the doctors to fight quackery wherever they find it. From a literary standpoint the best paper of the day was by W. J. Fernald. His title, "Sociological View of Criminal Abortion," would give some idea of the contents. It was discussed by Drs. Musselman, S. D. Young, John Young, Worrell, Johnson, Ten Broek, Mandeville and Roberts.

Dr. H. A. Eidson closed the program with a paper entitled, "Failure of Medical Journals to Fulfill Their Mission in Prevailing Diseases, Causes and Cures."

The election of officers resulted as follows:

President, Dr. Z. T. Baum, Paris.

Vice President, Dr. J. A. Baughman, Neoga.

Secretary and Treasurer, Dr. H. McKennan, Paris.

Censors, C. B. Fry, Mattoon; W. A. Buchanan, Paris; John Weir, West Union; Walker Schell, Terre Haute, Ind.; J. A. Baughman, Neoga.

The society adjourned at 12:30 A. M., with 50 members present at the close.

It is an unwritten law of the society that any physician who holds a professorship in a medical college is not eligible to membership.

The Will County Society held one of its special meetings at the Duncan Hotel in Joliet Wednesday evening, November 8th.

This society has adopted a series of banquets and special meetings during the year, and on each such occasion an address is given by some prominent physician. Last year these meetings proved a great success, and the first banquet of this season occurred as stated above.

Prof. Joseph Zeisler, lecturer on Dermatology in the Northwestern Medical School gave the address of the evening. The lecturer chose for his subject the differential diagnosis of the more common skin diseases as met by the general practitioner. While showing due credit to the ability of his hearers, he stated that the average general practitioner always approaches his cases of skin disease with some hesitancy in a diagnosis and more so than almost any other branch of medicine. The reason he assigns for this condition is the fact that until recent years so little attention was paid to this branch of medicine, the facilities for study in this line being limited. Today there is not a hospital in Chicago that has one ward given exclusively to the care of skin diseases, and until the same facilities are provided for the study and care of skin diseases as for others, the college student will be deficient

in that line. In this respect Chicago as a medical center is behind Paris, Vienna and Berlin.

Prof. Zeisler lays much stress on the examination of the patient. He said: "Let the patient tell his story; listen to it all, before asking questions." Some intelligent patients will see that the doctor knows little about his case if several questions, foreign to the disease are asked before he has given his story. Questions will be more intelligently asked after the doctor has heard his story and the patient will be convinced that the doctor does know something about the disease.

Further, Prof. Zeisler said: "Do not make a diagnosis from examination of a single lesion," as he insists on an examination of entire trunk and extremities if necessary. The specialist can easily tell in most cases what further examination will reveal even with examination of single lesion. To illustrate this, seborrhœa was mentioned.

Lupus Vulgaris and Lupus Erythematosus were each described and the distinction made plain. Lupus Vulgaris being tuberculosis of the skin, accompanied with ulceration, tubercles and papules, never occurring in hairy portions, most frequently seen on the face. Lupus Erythematosus occurring in hairy portions, seldom seen on the face, starting by a bright red spot thickened and raised skin followed by fading center with cicatricial tissue.

Skin irritation due to use of morphine was spoken of. There, tendency to scratch the extremities and the peculiar delusion these patients have—the belief of the patient that he has small worms in the skin that he can remove.

Special attention was called to fact that Syphilis is frequently overlooked and mistaken for other diseases. It is a serious matter to tell a patient who believes he has never had syphilis that he is a victim of such a disease, and just as serious to pass by that disease for a simple malady. Too many symptoms cannot be considered in making a diagnosis of this disease. The frequency of extragenital chancre is not

to be overlooked, neither is every lesion of the genital a syphilitic one.

Scabies was named as a skin disease that has certain localities always.

In social conversation during the early part of the evening, Prof. Zeisler showed that he is a deep thinker along political lines, and later in his address, touched on the policy of expansion as it will affect the dermatologist. In the Sandwich Islands, also in the Phillipines, Leprosy is very prevalent, and closer relations between the United States and these countries is certain to bring such cases to this country.

Dr. Edmund W. Weis, of Ottawa, Ill., Permanent Secretary of the Illinois State Medical Society, was also present. Dr. Weis consented to make some valuable remarks on the Journal of the State Society.

He spoke of its primary object, that of publishing the Transactions of the State Medical Meetings in such a form as to frequently remind the practitioner of its purpose—to act as a means of increasing the membership of the State Society, and that of being a means of urging the physicians to organize and exert their influence in a political way so that future medical legislation will be facilitated, and not embarrassed by Bland et al, thus rendering service to the public and to the practitioners.

The Journal is the only one in this State that has and will continue to publish the minutes of the different county medical societies.

Besides Prof. Zeisler and Dr. Weis, there were present Mayor John B. Mount, of Joliet; Dr. Eva McClannahan, of Manhattan; Dr. F. S. Searles, of New Lenox; Drs. J. A. Clyne, M. F. Williamson, P. J. O'Mally, J. R. Casey, L. J. Frederick, H. H. Baldwin, M. K. Bowles, Wm. Dougall, Wm. Richards, Thos. H. Wagner, H. H. Patterson, W. F. Steen, Philip LeSage, P. G. Rulien, H. E. Stephen, L. Brannon, H. H. Smith and G. M. Peairs, of Joliet.

Springfield, Ill., Nov. 14, 1899.

The Springfield Medical Club held a regular meeting in the County Court room

at 8 P. M., with Geo. N. Kreider as chairman, and Edward P. Bartlett, Secretary. Members present, Drs. Babcock, Bartlett, Berry, Buck, Bowcock, Dixon, Griffith, E. E. Hagler, G. N. Kreider, C. S. Nelson, A. E. Prince, I. H. Taylor, L. C. Taylor, and J. H. Utley.

Visitors: G. W. Bradley, Waverly; J. M. Duncan, T. A. McTaggart, Pawnee; Joseph Brayshaw, Berlin; W. C. Paine, New Holland; J. R. Pierce, Cornland; A. H. Mann, H. C. Hill, S. E. Munson, A. W. Barker, Helen Babb, M. T. Kelley, W. O. Langdon, Arthur Lee Hagler, Frank Fisher, Mack Jones, J. W. Kelly, G. L. Crocker, V. T. Lindsay, W. A. Young, J. A. Egan, F. W. Currier, city; W. B. Price, J. C. McMillan, New Berlin; G. W. Bradley, Chatham; J. W. Moffitt, Williams-ville.

Minutes of last meeting read and approved. The topic for discussion was Diphtheria. L. C. Taylor opened the subject with differential diagnosis and etiology; said it was unnecessary to enter into discussion of the numerous experiments which have been made to prove that a specific micro-organism, causing or generating certain ptomaines, was the cause of the disease. Two distinct opinions prevail as to the character of the disease; one, that it is a local manifestation of a constitutional disease; the other that it is primarily local, and that the constitutional symptoms are the result of toxins which find their way into the circulation and thus poison the system. The fact that the disease can be produced artificially in animals by means of inoculation, and that where care is exercised in examining, the local appearances are manifest in advance of serious constitutional disturbances, and that a distinct micro-organism can be demonstrated in every authentic case, inclines the majority of the medical profession to the opinion that the disease is one that owes its origin to a distinct local infection. Those opposed to this theory contend that the Klebs-Loeffler bacillus is frequently found in the throat of persons who present no symptoms of the disease, and

while no one will dispute this statement, it might as well be argued that the staphylococcus pyogenus aureus does not cause suppuration, or that the streptococcus does not cause erysipelas. A certain natural or acquired resistance or immunity; the health of the subject, are all to be considered as factors upon the one hand, and the virulence of the organism upon the other, in determining why some escape and others are afflicted. The virulence of the specific germ varies in different epidemics and at different stages of the epidemics, so that every variety may be presented even in the same family, from those rapidly fatal, to those presenting the mildest symptoms.

In making a differential diagnosis one frequently encounters tonsillitis, simple or follicular, scarlatina, erysipelas and diphtheria. In tonsillitis, especially in the early stages, the tonsils are usually much swollen and present numerous white spots, corresponding to the openings of the crypts. The exudate is easily removed and does not usually leave a bleeding surface. In diphtheria the patches are either single or few in number, more tenacious, and when removed come away in the form of an organized membrane, leaving a bleeding surface. The color first light usually becomes a dark gray or black. The tonsils are rarely swollen, and swallowing is not painful as compared with tonsillitis. In scarlatina the presence of other symptoms, and the early appearance of the cutaneous eruption will promptly remove all doubt as to diagnosis. An exudate upon the palate or pharynx is, nearly always, indicative of diphtheria. In regard to clinical symptoms, the fever in diphtheria is usually lower and the pain less than in the disease from which it is to be differentiated. While it may be possible that there is an inflammatory process with development of false membrane, which is not diphtheritic, was convinced that nearly all cases of so-called membranous croup were nothing more or less than laryngeal diphtheria. In a large majority of the cases of laryngeal diphtheria there is also reddening of the tonsils with or without exudation. From

laryngitis and spasmodic croup it is to be distinguished by the absence of fever in the latter disease, and in general the symptoms are less grave. The difficulties in the way of making a critical examination in many of the cases, on account of age, etc., makes it next to impossible to make a diagnosis without the use of the microscope. The importance of an early diagnosis, both in respect to treatment and the protection of others, makes it imperative to use every means at command, where there is room for doubt in regard to the diagnosis. Method for gathering material for examination was described, and specimens of cultures were shown under microscope, by Drs. Taylor, Kelly and Munson.

H. B. Buck spoke of the constitutional treatment, laying particular stress on the value of the different nuclein preparations towards fortifying the system against the toxins of this disease. J. N. Dixon said that a few years ago the local treatment was very important, but that since the introduction of antitoxin, had become of minor importance. Local treatment was apt to open up new centers of infection when undertaken on a struggling child, and in ordinary cases should not be used. A. E. Prince spoke on intubation which he said had also fallen into desuetude. When used the original O'Dwyer should not be used, but the French modification in which the lower third is merely a loop, and obviates the danger of pushing the membrane ahead and causing suffocation. The introducer should be of the duck bill pattern. The extractor should be a powerful magnet which could be connected with a battery and makes the extraction an easy task.

Dr. R. D. Berry considered the treatment of diphtheria with antitoxin. Cited the discovery of antitoxin by Behring, and of the effects of same upon animals infected with diphtheritic poison, they being rendered immune to same by the use of the antitoxin. Behring found it necessary to have a standard of strength, of which he stated one-tenth of one cubic centimetre of what Behring called his

standard, or normal solution, would counteract ten times the minimum of diphtheritic poison fatal for a guinea pig weighing three hundred grammes. One cubic centimetre of this normal serum Behring calls an antitoxin unit. Thought it strange that so large a number of physicians had never used the antitoxin, but attributed it to conservatism and fear of the action of same. When first introduced a number of deaths occurred and they were attributed to the effects of the antitoxin rather than to the disease, the fact having been lost sight of that diphtheria kills suddenly, on account of heart failure or sudden syncope. The improvement in pureness of the serum has removed many of the unpleasant effects of the earlier forms of same. Some of the unpleasant effects were albuminuria, urticaria, pains in joints, abscess and diffuse erythemia. Believes there are severe cases that antitoxin will not cure, but this fact should be no bar against its use. It is as near a specific as we will ever have. Maintains that antitoxin should always be given in diphtheria, and that one should not wait for a bacteriological diagnosis, as time is of great value and life may depend upon a few hours delay. Statistics gathered from many sources show that when the serum is given in full doses within the first forty-eight hours, the death rate is a little less than 5 per cent, and this mortality includes membranous croup. In Chicago last winter, under charge of Chicago Board of Health, antitoxin was used in 219 cases, 33 of which were intubated, and of the whole number nine cases died, a mortality of 4.1 per cent. Experience shows that serum manufactured in this country possesses as much virtue as any and that it is perfectly reliable and satisfactory. Immunizing doses should be given to children exposed to the disease, 500 units being the dose to be thus given, and is protective for from four to six weeks. To a child two years or over advises a dose of 2000 units, and repeat in twelve to sixteen hours if there is no improvement. Prefers the tissue midway between the superior spinous process

and the ribs for the injection. Effects of the injection generally prompt and constitutional treatment is usually not required. Believes that if used early and in full doses that the mortality will not exceed two to three per cent.

Dr. Bartlett spoke a few words on the paralysis following this disease and its treatment.

Dr. B. B. Griffith spoke on prevention and effective quarantine.

The meeting then adjourned for lunch, after which a committee reported that a Sangamon County Medical Society should be formed which should meet on the second Monday of each month at 8 P. M., with social features. A committee was appointed consisting of S. E. Munson, L. C. Taylor and E. E. Hagler to report a constitution and by-laws at the next meeting, December 11th, when permanent officers will be chosen.

PEORIA CITY MEDICAL SOCIETY.

President, O. J. Roskoten.
Vice President, E. M. Sutton.
Secretary, N. M. Sedgwick.
Treasurer, Emma Lucas.
Censor, J. C. Roberts.

Correspondence.

Editor Journal:

I sincerely hope that every member of the Illinois State Medical Society has read the series of letters contributed by Dr. A. C. Corr on "The relations existing between the State Society and the State Board of Health." Dr. Corr has shown very clearly and conclusively that that Board is a creation of the State Society, and that its success depends upon the attitude assumed by the medical profession toward it.

If the personnel of that body has not at all times been what it should be, the organized profession is to blame, and not the appointing power. The State Society should and can control appointments to this Board. A vacancy will occur Decem-

ber 31st, that geographically belongs to Cook county. It is the duty of Chicago physicians to select some good man and see that he is properly indorsed. Unless this is done it is childish to make complaint if a bad appointment is made.

J. W. Pettit,

Chairman Legislative Committee.

In the Chicago Record of November 10, Dr. J. A. Egan, Secretary of the State Board of Health, writes the following letter, which explains itself:

"Springfield, Ill., Nov. 9, 1899.

To the Editor—It may be, as alleged in the Record of this morning, that 'unlawful practitioners are bold and numerous' in Chicago. If such be the case this office has no knowledge of the fact. Undoubtedly, however, in Chicago, as in large cities in other states having laws far more stringent than those in effect in Illinois, the statute regulating the practice of medicine is not strictly complied with. That this law should be violated in some instances is perfectly natural. In this connection, however, there is a wide difference between a professed treatment and actual practice. Proof of the latter is always difficult, often impossible to obtain. I refer now to proof sufficient to convince the average jury.

"Statements to the effect that quacks, i. e., unlicensed practitioners, 'have flourished during the last two years as never before in the city' are not sustained by facts. In truth the very reverse is the case. Equally false is the assertion that the advertisements of these 'unlawful practitioners,' who are reported both 'bold and numerous,' are 'conspicuous in the newspapers.' In neither The Record, the Tribune, the Inter-Ocean, the Times-Herald nor the Chronicle of this morning can be found the advertisement of even one physician who is not licensed by the Illinois State Board of Health on examination or on the presentation of a diploma from a medical college recognized by the Board. In the majority of instances the licenses in question were issued before the present Board assumed office. It is true that in a few cases there is published the cards of licensed

midwives who, usurping the functions of physicians, advertise to treat human ailments. It is likewise true that in every case an authorization for the prosecution of the violator of the law has been issued by the Board. It is also a fact that authorizations have been issued for the prosecution of every non-registered practitioner who has advertised in the daily papers of Chicago during the last month. In some cases a conviction has been secured. In others suits are still pending.

"Parenthetically in this connection it may be stated further that in every case when a violation of the medical-practice act is reported to this office a warning notice is immediately sent to the violator. Should not the practice reported be discontinued after a reasonable time an authorization for prosecution is issued. This Board has never received instructions from any one to disregard the practice of certain non-licensed practitioners. The issuance of an authorization, however, does not convict the violator of the law. Proof of practice must be obtained. This is rarely furnished by the persons making the complaint and the Board has yet to receive in the enforcement of the law the assistance of those who are so freely criticising it.

"So far as 'immunity,' 'petty blackmailing' and 'favoritism' are concerned this office has no knowledge of such, although it is claimed that these practices are 'too common to attract much attention.' No charges of this character have ever been made, even anonymously, to this office during the two and one-half years I have been Secretary. Undoubtedly, however, it is possible that certain persons claiming to represent the Board have called upon presumed violators of the medical-practice act, and under threats of prosecution have compelled the delivery of money, jewelry and other articles of value. This Board, however, is no more responsible for this than is the city of Chicago, for the bogus inspectors claiming to represent different departments in the city hall, who, under various plausible pretences, obtain entrance to dwellings and ransack the same, after send-

ing the occupants to the garret or the basement on various will-'o-the-wisp chases. *

"The enactment of the present medical practice act was secured through the united efforts of the legislative committee for the Illinois State Medical Society and the State Board of Health sustained by the influence of the majority of the physicians of the State. This law, though by no means the legislation desired by the committee, was the best that could be obtained. The members of the State Board of Health and of the committees referred to were unanimously in favor of the bill originally introduced creating a State Board of Medical Examiners, leaving the State Board of Health free to perform sanitary duties alone. It was only when the impossibility of securing such legislation became apparent that a compromise bill was introduced, covering the salient features embraced in the proposed bill and the act then in force, the creation of a new board alone excepted. There would have been no difficulty whatever in obtaining the law desired had the physicians of the State given less heed to the misrepresentations of those who desired to remove from the statutes all medical laws whatever.

"The law in effect, which received in the house of representatives 129 votes in the affirmative and none in the negative—this, too, when not over 130 members were in the assembly—has received the indorsement of the Illinois State Medical Society, the Chicago Medical Society and of various county medical societies in the State. Its imperfections—there are many—can be easily remedied two years hence if the medical profession of the State so will. I personally am in favor of the reintroduction, with slight modifications, of Senate Bill No. 167 (Mr. Gardner) 'for an act to establish a state board of medical examiners, prescribing its powers and duties, to provide for the licensing of practitioners of medicine and midwifery and to regulate the practice of medicine and midwifery in the State of Illinois, and to repeal all acts or parts of acts conflicting therewith.'

Very truly yours,
J. A. Egan, M. D., Secretary."

The following communication received in answer to a circular letter sent to every new licentiate, July 1st, 1899, by the courtesy of the Secretary of the State Board of Health, tells its own story. There are other "outsiders" who would join the Society, and are worth looking after. Can we not devise some means of reaching them?

—————, Ill., Nov. 19, 1899.

Dr. Geo. N. Kreider, Treas. Illinois State Medical Society.

Dear Doctor—Accompanying my license for the practice of medicine in this State, issued in June, 1899, was a notice from you calling my attention to the Illinois State Medical Society, and kindly asking me to join through the medium of a local organization.

I am not only willing, but anxious to become a member, as I know I will receive benefits therefrom, and firmly believes that it is to the interest of the profession to have its practitioners members of a fraternal organization, but the conditions of affairs existing in this locality prevent me from seeing my way clear to become a member of such, and I write hoping I may receive some light from you.

I have made inquiries of a number of practitioners in this county, most of them at Charleston, and was amazed to hear that there was now no local medical society; that there had been, but that it had been for some time "on wheels" and had foundered.

In my three months' practice here I have come to realize that their statements must be true as there seems to be no regard for ethics with some, not only towards me, but towards others as well, and prices are cut deplorably to gain ground in another's field.

Only three days ago I was compelled to withdraw from a case of typhoid fever in the stage of defervescence because I could not endure the insult of a physician from Charleston working his way into my case against my wishes, leaving medicine he knew I did not use, and telling the family that he would call when sent for again.

The patient lives two miles south of here, making it ——— miles from Charleston. This could not have been directed against me personally, as I do not know that the doctor had ever heard of me before, and he, being a man of an honorable profession would surely not have directed his attentions against a brother physician who has been out of college only about five months, unless his mind had been previously well trained for such.

I recite this to illustrate the condition of affairs in this county and the need of an organization here, and trust that, as several of my physician friends are also anxious for such organization, there will soon be one established or renewed here, and that there may be some way in which I might be honored by uniting myself to the Society of which you are Treasurer.

Thanking you for your generous offer, I am,

Fraternally yours,
* * * *

NOTICE.

At the forthcoming meeting of the Society Dr. Joseph. B. De Lee the well-known obstetrician will read a paper on "The Aseptic Conduct of Labor," and will demonstrate the methods in use in the Chicago Maternity Hospital. The discussion of the paper will be opened by Dr. J. Clarence Webster, who has succeeded the late Dr. J. H. Etheridge as Professor of Obstetrics and Gynecology in the Rush Medical College.

Dr. A. H. Ferguson, of Chicago, will read a paper on "Early Nephrotomy," which, it is believed, will be of great practical interest and importance. He will report several cases where an early operation relieved severe kidney symptoms.

Dr. F. Kreissl, of Chicago, will speak of Bottini's operation for enlarged prostate, and will exhibit the electrical apparatus which is used in the treatment of these cases.

State Items.

The Aurora hospital has been greatly improved. The operating room has been entirely refurnished.

Dr. Meredith Rice, of Plainville, Adams county, has sued Dr. Joseph Aleshire of the same village for slander.

Dr. A. F. Lemke has been appointed adjunct professor of medicine in the College of Physicians and Surgeons.

A meeting held by "Dr." Dowie at the West Side Tabernacle, at which an address was made on "Doctors, Medicine and the Devil," was broken up by a mob of medical students.

Dr. Henry P. Newman, Chicago, treasurer of the Association, has returned from his European trip. The doctor made Paris his objective point for certain medical investigations.

A child, 4 years old, in Hammond, Ind., died of diphtheria recently and the coroner charges the parents with willfully neglecting to bring in medical aid. Their guidance is said to have been the doctrines of "Dr. John Alexander Dowie," of Chicago.

The Corr hospital in Carlinville has had six capital operations in its well equipped operating room since its opening reception to the public this year, and has on its staff all the local physicians and surgeons of the city.

Dr. John B. Murphy gave a dinner at the Auditorium Annex October 11, in honor of Sir James A. Grant, Ottawa, and Dr. Rafael Lavista, of Mexico. The following were present: Drs. Senn, Fenger, Bridge, Lydston, Evans, Butler. Later in the evening they attended the meeting of the Chicago Medical Society, where addresses were made by the guests.

The suit for malpractice against Dr. Robert E. Coy, of Rockford, Ill., in which the plaintiff asked for \$10,000 damages, was on November 1 dismissed, the plaintiff paying the costs. The case was one in which diseased bone was removed from the foot, and later, the disease extending, the foot had to be amputated. All of Coy's professional confreres were ready to endorse his conduct of the case.

Dr. W. R. Spratling, Sonyea, N. Y., presented the claims of the epileptics of Illinois before the Conference of Charities and Correction, recently held at Bloomington, Ill. His suggestion was that the State secure large acreage and available soil and establish a colony and provide employment for the patients. The insistent point was that it be a colony, not an asylum, as are the institutions of Massachusetts, Pennsylvania and Ohio. The economy of colonization was illustrated and Dr. Spratling claimed the proof of it in the three years' experience of the Craig Colony.

Letters each with enclosure have been received from:

Geo. Bley, Beardstown.
A. Lee Hagler, Springfield.
W. O. Langdon, Springfield.
H. B. Brown, Lincoln.
W. R. Boggs, Macon.
A. Kann, Peoria.
Edw. Luehr, South Chicago.
E. S. Spindel, Springfield.

FOR NIGHT SWEATS and local hyperidrosis, Hirschfeld, of Berlin, has found that a mixture of equal parts of absolute alcohol and a 40 per cent solution of formaldehyde is nearly specific. Owing to the dangers of intoxication if too much is used at one time, only part of the body and from 5 to 10 c.c. are used at one time. If the fumes of formaline are very disagreeable cotton saturated with turpentine may be held before the nose and mouth. The sweating is stopped for one or two weeks when a new application must be made.

Marriages, Deaths, Change of Address

MARRIAGES.

Aug. Bechtold and Miss May Dake, of Belleville, Nov. 1.
 H. S. Skinner and Mrs. Mabel E. Cracraft, of Forrest, Nov. 4.
 Guy Armstrong, medical student, and Miss Fannie Ricks, of Taylorville, Nov. 12.
 Thomas Jay Robeson and Miss Frances Harper, Nov. 15, at Lakota Hotel, Chicago.
 A. F. Wilhelmy, of Decatur, and Miss Grace Weaver, of St. Louis, Mo., Oct. 30.
 Wm. G. Whittle, Jr., and Miss Lela A. Pierce, daughter of Dr. and Mrs. J. R. Pierce, of Cornland, Nov. 29.

DEATHS.

(Furnished by State Board of Health.)

Antes, Henry T., Geneseo, Oct. 23, 1899.
 Ayres, W. N., Aug., 1899.
 Cox, Noah S., Beecher City, Sept. 17, 1899.
 Ellwanger, Paul, Oct. 12, 1899.
 French, Amelia J., East Lynn, Oct. 9, 1899.
 Gowan, Jas. E., Metropolis, Oct. 27, 1899.
 Gross, Maria M., Chicago, Aug. 11, 1899.
 Hickman, Thos. G., Vandalia, Sept. 21, 1899.
 Kennedy, J. C., Chicago, Nov. 2, 1899.
 Lins, Julius L., Wilmington, Nov. 9, 1899.
 Lyons, Wm. A., St. Francisville, Sept. 14, 1899.
 McClintock, Jas., Galva, Nov., 1899.
 O'Connor, D. P., Charleston, Oct., 1899.
 Shell, E. E., Bloomington, Aug., 1899.
 Shidler, A. L., Sept. 1, 1899.
 Southworth, Siocum, Kampsville, Oct., 1899.
 Stettler, Cornelia S., Chicago, Oct. 20, 1899.
 Smith, J. I., Shannon, Oct., 1899.
 Traub, Christian, Chicago, Aug. 10, 1899.
 Tucker, James I., Chicago, Nov. 11, 1899.
 Van Tuyl, E. A., Riverside, Oct. 26, 1899.
 Woodward, Roland E., Chicago, Aug. 6, 1899.

CHANGES OF ADDRESS.

(Furnished by State Board of Health.)

CHANGES IN CHICAGO.

Auld, J. M., 475 Ogden av. to 100 State st.
 Boynton, W. E., to 351 W. 63rd st.
 Ballinger, Wm. L., 103 State st. to 100 State st.
 Blinn, Odell, 126 State st. to 292 E. Indiana av.
 Blackwood, A. L., to 31 Washington st.
 Boddiger, Chas. E., 3199 to 2801 Archer av.
 Brown, Alice B., to 375 Dearborn av.
 Brown, Sanger, 34 Wash'ton st. to 100 State st.
 Clayton, Chas. F., to 4 Market Circle, Pullman.
 Cadwell, Ernest, 7735 Stewart av. to 2452 Wentworth av.
 Christopher, W. S., 406 to 408 Center st.
 Cobb, Jos. P., 3156 Indiana av. to 254 E. 47th st.
 Cook, J. C., 47th st. to 5708 Jefferson av.
 Cooper, A. R., 2818 Armour av. to 3121 Dearborn st.
 Cross, E. D., 3142 Prairie av. to 3748 Albany av.
 Dunning, Jesse, 333 Lincoln to 1221 Belmont av.
 Favill, H. B., 394 Chicago av. to 100 State st.
 Frankenthal, L. E., 103 to 109 Randolph st.
 Fridus, S. L., Ashland Boul. to 661 W. 14th st.

Furlong, Moses, 228 E. 47th st. to 2136 Indiana av.
 Gentles, H. W., 153 E. 53rd st. to 210 E. 51st st.
 Grover, D. R., 767 Congress st. to 382 Southwestern av.
 Grover, O. I. M., to 382 Southwestern av.
 Gleitsman, Emil, 118 Park st. to 654 N. Hoyne av.
 Goodkind, M. L., 3035 to 3033 Indiana av.
 Hale, A. B., 69 22nd st. to 6626 Monroe av.
 Halstead, A. E., 103 State st., Res. 804 Warren av. No change of address as indicated last month.
 Harris, M. L., 552 LaSalle av. to 100 State st.
 Harrison, W. K., to 1602 Masonic Temple.
 Harvey, Don S., 9154 to 9159 Commercial av.
 Hoag, J. C., 4320 Lake av. to 4669 Lake av.
 Hunt, F. W., 100 State st. to Lexington Hotel.
 Hunt, W. B., 100 State st. to 92 State st.
 Kensington, M. L., to 271 N. Clark st.
 Klebs, Arnold, 92 State st. to 100 State st.
 Lee, E. H., 813 Harrison st. to 100 State st.
 Long, R. D., to 813 W. Harrison st.
 Lydston, G. Frank, 100 State st. to 1095 N. Clark st.
 McCandless, J. C., to 6536 Ingleside av.
 Mergler, Marie J., 34 Washington st. to 100 State st.
 Moore, F. B., 209 Morse av. to Arcade Bldg., Pullman.
 Moore, Emma M., 4679 Lake av. to 6025 Prairie av.
 Malone, Geo. B., 226 to 219 Ontario st.
 Parker, Helen M., 56 to 53 Warren av.
 Preble, Robt. B., 1907 Deming Place to 590 Dearborn av.
 Rosan, E. W., 297 55th st. to 5442 Drexel av.
 Sauer, H. Edward, 1448 Sheridan Road to 398 Wells st.
 Scott, T. A., 133 Clark st., new address unknown.
 Small, A. R., 3131 to 3035 Indiana av.
 Smith, A. W., 1326 to 1328 W. Polk st.
 Stanford, Mary E., to 7850 Cornell av.
 Stewart, W. T., 2106 to 1612 W. 12th st.
 Stulik, Chas., 585 S. Center av. to 525 S. Lincoln st.
 Trowbridge, E. G., 78 N. Ada st. to 924 Addison st.
 Walker, S. J., 105 Pine st. to 34 Washington st.
 Wenzlick, Wm., to 241 Dearborn av.
 Webster, John C., 820 to 946 Jackson Blvd.

CHANGES FROM CHICAGO.

Beardsley, J. A., to Moline, Ill.
 Buckholz, E. A., to Keensburg, Ill.
 Bush, G. C., to St. Mary's Hosp., Milwaukee, Wis.
 Ewing, E. W., to Spikard, Mo.
 Ingals, F. M., to Highland Park.
 Kellander, Jennie A., to Moline, Ill.
 MacLachlin, John W., to Dayton, Wash.
 Poole, Geo. W., to Danville, Ill.
 Sageser, Jos. S., to Downs, Ill.
 Stehman, H. B., to Pasadena, Cal., temporarily on account of ill health.
 West, Eugene G., to Effingham, Ill.

CHANGES TO CHICAGO.

Appleman, J. S., from Cairo to 100 22nd st.
 Allport, Frank, to 92 State st.

Christison, J. S., to 100 State st.
 Hewitt, Henry M., from Franklin Grove to 4300
 Cottage Grove av.
 Hawey, Robt. H., to 2100 Calumet av.
 Hogan, Sarah J., to 488 West Taylor st.
 Leland, John T., from Normal to Chicago.
 Lockyer, C., Douglas to 345 S. Paulina st.
 Palvis, A. S., from March, S. D., to 725 120th st.
 Podstata, Vaclav, from Kankakee to Chicago.
 Replogle, B. F., from Champaign to 371 W.
 Park av.
 Ross, D. D., from Peoria to 4123 Calumet av.
 Schmidt, Louis E., to 424 State st.
 Weeks, A., Allegan, Mich., to U. S. Mar. Hosp.
 Wood, Chas. S., from Oak Park to 121 LaSalle st.
 Winget, S. E., Wyoming, Ill., to 67 Wabash av.
 Warner, A. L., Kankakee to 34 Washington st.
 White, C. A., to 78 E. 26th st.

CHANGES FROM ILLINOIS.

Boyer, H. C., Newark to Minnesota.
 Burton, Robt. H., Belvidere to Colorado
 Springs, Col.
 Bentley, Morgan A., Ivesdale.
 Gregory, W. G., Cave in Rock to San Diego Bar-
 racks.
 Gordon, Jos. J., Cairo to Columbus, O.
 Houck, R. M., LaSalle to Spokane, Wash.
 Harvey, Jos. R., Stillman Valley to the West.
 Holsom, Ralph R., from Ivesdale.
 Kellogg, G. M., Chicago to Prescott, Ariz.
 Lackey, J. S., Stanford to Kentucky.
 Lillie, Park A., Tampico to Comanche, Ia.
 Mengle, S. A., LaSalle to Seattle, Wash.
 McFarland, Geo. C., Jacksonville to Manches-
 ter, N. H.
 Moeser, Philip, New Athens to St. Louis, Mo.
 Malone, W. P., Cairo to Washington, D. C.
 Mack, Hugh P., from Ivesdale.
 Moore, C., from Ivesdale.
 Rawlings, D. W., Cantrall to Minonk.
 Scruggs, S., Sullivan to Hastings, Neb.
 Smith, Julian A., El Paso to New York City.
 Stedman, John, Danforth to Nashville, Tenn.
 Tice, Frederick, Dunning to Europe.
 Taylor, T. G., Ashton to Waterloo, Ia.
 Vasen, Sarah, Quincy to Philadelphia, Pa.
 Warford, John D., Cave in Rock to Tolu, Ky.
 Williams, Hugh T., Versailles to Texas.
 Zeller, Geo. A., Peoria to Phillipines, Army ser-
 vice.

CHANGES TO ILLINOIS.

Allen, J. W., to Custer.
 Becker, H. F., St. Louis, Mo., to Danville.
 Carter, W. A., to Trenton.
 Chilson, Benj., to Sharron.
 Etherton, J. C., Fort Worth, Tex., to Murphys-
 boro.
 Fuqua, John W., to Urbana.
 Garrison, A. T., Broadlands to Longview.
 Goodwin, W. H., French Lick Springs, Ind., to
 Indianola.
 Guthrie, J. B., to Springfield.
 Howard, M. L., to Danville.
 King, J. S., returns to Decatur.
 Koch, John A., to Quincy.
 McKinley, L. D., Topeka, Kan., to Effingham.
 Metcalf, B. F., Walton, Ky., to Diona.
 Perkins, Jos., Washington, D. C., to Charleston.
 Radshaw, to Curran.

Reed, J. F., to Rochester.
 Smith, C. L., to Aurora.
 White, Persis, to Streator.
 Wilcox, S. H., to Shattuc.
 Wilkinson, E. B., to Chester.
 Young, A. D., to Downs.

CHANGES IN ILLINOIS.

Barcroft, V. B., Walshville to Litchfield.
 Brown, M. N., Golden to La Prairie.
 Bartley, John M., Ridgway to Shawneetown.
 Busbee, G. B., Cambridge to Englewood.
 Brayshaw, M. M., Du Quoin to Murphysboro.
 Blacklock, T. W., Stronghurst to Meredosia.
 Beniefiel, W. F., Ivesdale to Atwood.
 Blaine, W. C., Murdock to Tuscola.
 Craig, C. M., Tolono to Champaign.
 Connell, B. R., Davis to Rockford.
 Cornish, J. V., DeKalb to Rockford.
 Childs, C. F., Decatur to Ivesdale.
 Dunlap, Jas. A., Springfield to Hammond.
 Elliott, John M., Eureka to Normal.
 Fithian, P. H., Fithian to Homer.
 Fegers, Geo. W., Dallas City to Nauvoo.
 Guthrie, F. A., New Boston to LaSalle.
 Hughes, E. B., Bernadotte to Canton.
 Harvey, W. Fred, Ray to Rushville.
 Hudson, Benj., Scottville to Moline.
 Hayhurst, W. C., Westport to Flatrock.
 Horrell, C. B., Colchester to Galesburg.
 Hinkley, James J., Westfield to Melrose.
 Jackson, J. H., Mattoon to Shelbyville.
 Johnston, W. W., Illinois Steel Co. Hospital to
 Chicago Heights.
 Johnson, Wm. T., Cottonwood to Ridgway.
 Kerr, R. A., Dunlap to Peoria.
 Labaume, Lydia A., Geneva to Rockford.
 Lingle, W. E., Degonia to Cobden.
 Legier, J. T., Keensburg to Serena.
 Miller, Benj. F., Wellington to Rankin.
 McCann, F. P., LaMoille to Ohio.
 Mansfield, J. M., Quincy to Hebron.
 Mizell, A. G., New Burnside to Shelbyville.
 Morse, A. W., Joliet to Odell.
 Palmer, Martin J., Arcadia to Beardstown.
 Prather, J. E., Glasgow to Tallula.
 Prewett, Geo. D., Beecher City to Vandalia.
 Purdy, Wm., Russellville to Lawrenceville.
 Poindexter, Jos. S., Woburn to Mulberry Grove.
 Roberts, A. J., La Grange to Ottawa.
 Rowe, Jesse, Abingdon to Monmouth.
 Rowland, Geo. T., Martinsville to Clark Center.
 Shurtz, Richard E., Fisher to Champaign.
 Sadler, Harry, Waddams Grove to Shannon.
 Swanson, J. E., Woodhull to Swedona.
 Shrontz, Claude F., Momence to Hospital.
 Sheldon, E. M., Geneva to Seneca.
 Stafford, O. B., New Boston to LaSalle.
 Sells, A. C., Seaton to Aledo.
 Smith, Jas. W., Cutler to Sparta.
 Smith, Cyrus H., Tonica to Rockford.
 Soule, Chas. E., Sheridan to Morris.
 Starret, C. E., Monmouth to Elgin.
 Trovillion, Milo, Columbus to Round Knob.
 Taylor, Ewing K. M., DeWitt to LeRoy.
 Truax, Herbert E., Chicago to Springfield.
 Walters, C. H., remains in Springfield.
 Wright, W. K., Mt. Auburn to Taylorville.
 Wharton, J. E., Chrisman to Jacksonville.
 Wright, J. W., Muncie to Fairmount.
 Zorger, W. H., Champaign to Urbana.

C. B. Johnson 342

ILLINOIS Medical Journal

The Official Organ
of the
State Medical Society



A Monthly Bulletin
Edited by the
Publication Committee

Printed by
THE ILLINOIS STATE JOURNAL COMPANY.

Entered in the Springfield Postoffice as Second-Class Matter.

Volume XLIX.
New Series, Vol. I.
Number 7.

Springfield, Ill., January, 1900.

Subscription, \$3 a Year.
Single Copies, 25 Cents.

SIXTEEN EXTRA PAGES IN THIS ISSUE.

TABLE OF CONTENTS.

ORIGINAL ARTICLES.

Some Remarks on Chronic Bright's Disease—Arthur R. Elliott, M. D., Chicago,	291
Movable Kidney—A. E. Halstead, M. D. Chicago,	295
Psychology vs. Medicine—J. T. McAnally, M. D., Carbondale,	306
Report of Cases in Gall Bladder Surgery and Their Sequellae—J. E. Allaben, M. D., Rockford,	316
Desirable Sanitary Measures for Smaller Cities—Louis E. Fischer, C. E., Paris,	326
Medical Organization—James Tweddale, M. D., Washburn,	330

EDITORIALS.

Chicago Drainage Canal,	334
Migratory Medicos,	335

CORRESPONDENCE.

Smallpox in Illinois—J. Nevins Hyde, M. D., Chicago,	342
--	-----

BOOK NOTES.

Transactions of the Indiana State Medical Society,	332
--	-----

COUNTY AND DISTRICT SOCIETIES.

Vermillion County Medical Society,	336
Warren County Medical Society,	336
Kankakee County Medical Society,	336
McLean County Medical Society,	336
Clay County Medical Society,	336
Decatur Medical Society,	336
Clinton County Medical Society,	336
North Central Illinois Medical Association,	336
Sangamon County Medical Society,	338

Marriages, Deaths, Changes of Address,	351
Endorsement of Geo. W. Webster for Member of State Board of Health,	290
List of Members Paying Dues,	290

ENDORSEMENT.

At a joint meeting of the Chicago Medical Society and the Chicago Medical Examiners' Association, held December 13, 1899, Dr. Denslow Lewis introduced the following resolution which was adopted unanimously:

WHEREAS, The Chicago Medical Society and the Chicago Medical Examiners' Association are informed that a vacancy will soon exist in the State Board of Health, and

WHEREAS, The Chairman of the Legislative Committee of the State Medical Society of Illinois has reported that geographically this vacancy belongs to Cook County, and he has further stated that it is the duty of Chicago physicians to select some good man and to see to it that he is properly endorsed; therefore

Resolved, That, without prejudice to the interests of other candidates, the members of the Chicago Medical Society and the Chicago Medical Examiners' Association, endorse unqualifiedly the candidacy of Dr. Geo. W. Webster to be a member of the State Board of Health. They recognize in Dr. Webster a man of integrity, reputation and honor, a physician of ability and eminence in the profession, a gentleman in every way qualified to act for the best interests of the people of the State.

Resolved, That a copy of this resolution, properly signed and attested, be transmitted to his Excellency, the Governor of the State of Illinois.

Dr. Lewis said: I am induced to offer this resolution and to ask its unanimous adoption, not because I am an intimate friend of Dr. Webster, for I am not. I believe he is well qualified to be a member of the State Board of Health. I believe every word said about him in the resolution is true. He is a reputable representative of the profession of Chicago, and, if appointed, he will do good work.

But there is another consideration of this subject, which transcends the interests of any one man. The chairman of the Legislative Committee of our State Medical So-

ciety, Dr. Pettit of Ottawa, tells us that it is our duty to select some good man and see that he is properly endorsed. He tells us that unless we do this, it is childish to complain if a poor appointment is made. I believe he is right. I believe it is time for the profession to take a decided stand in reference to medical appointments and I know the recommendation of these two medical societies assembled in joint session will receive respectful consideration.

In seconding the resolution Dr. H. N. Moyer said: It has not been the custom of this society to endorse men for positions in the public service, but the circumstances in this case are exceptional. The position is purely honorary and one which is of great importance from a public health stand point, and in the interests of a higher medical education. Dr. Webster is one of the leading members of this society and eminently qualified both by education and training for the position.

Letters, each with enclosure, have been received from—

J. E. Allaben, Rockford.
Wm. A. Pusey, Chicago.
Leroy Jones, Hoopeston.
The Newberry Library, Chicago.
Wm. E. Morgan, Chicago.
L. Hektoen, Chicago.
Chas. W. Evans, Chicago.
Wm. H. Rumpf, Chicago.
John Ross, Pontiac.
H. A. Eidson, Willow Hill.
G. L. Williamson, Homer.
E. T. Goble, Earlville.
N. K. McCormick, Normal.
H. W. Hand, White Hall.
D. A. Drennan, Springfield.
W. T. Moffett, Williamsville.
Chas. H. Beard, Chicago.
J. Clarence Webster, Chicago.
R. M. C. Ball, Monmouth.
R. E. Gordon, El Paso.
J. C. Franken, Chandlerlerville.
E. Mammen, Bloomington.
L. Brannon, Joliet.
E. A. Kratz, Champaign.
T. H. Stetler, Paw Paw.
G. T. Meacham, Taylorville.
S. L. Weber, Chicago.
R. H. Main, Barry.
J. N. Dixon, Springfield.
L. Blake Baldwin, Chicago.
W. W. Douglas, Hillsboro.
A. B. Middleton, Pontiac.

The Illinois Medical Journal.

The Official Organ of The Illinois State Medical Society.

VOL. XLIX.
New Series, Vol. I.
No. 7.

Springfield, Ill., January, 1900.

{ SUBSCRIPTION
\$3.00 A YEAR.

SOME REMARKS ON CHRONIC BRIGHT'S DISEASE.*

BY ARTHUR R. ELLIOTT, M. D., CHICAGO.

The term "Chronic Bright's Disease" in its full generic sense includes several more or less distinct pathologic states. When the term is applied as a specific appellation to denote a single diseased condition, it is chronic interstitial nephritis that is meant in preference to its congeners chronic parenchymatous nephritis, amyloid or cyanotic kidney, these latter states being in the main associated with antecedent or coincident morbid processes. In this manner the name "Chronic Bright's Disease" has been employed in the title of this paper to denote chronic interstitial nephritis or granular kidney, the latter a term much in vogue among English clinicians, although less frequently used in America. Some question may be raised against the use of the two as synonymous terms, the name "granular kidney" denoting a process purely cirrhotic in nature, while "interstitial nephritis" implies the occurrence of inflammatory changes. This distinction is of greater theoretic than practical interest, for the end product of the two is the same, the clinical history is almost identical and I believe it rare indeed, for a purely cirrhotic process to run its course without the occurrence of incidental inflammatory changes.

Chronic interstitial nephritis is a disease of frequent occurrence, a frequency by no means adequately recognized. Various statistics have been compiled from post-mortem records which go to show according to West an occurrence of from 11 to 18 per cent. This is largely in excess of its clinical recognition. Goodhart's statistics compiled from the records of Guy's hospital, yield 15 per cent, while the

records of the Birmingham general hospital are represented by Saundby as revealing a frequency of 18 per cent. The observations published by Samuel West in the last Lettsomian lectures are still more striking and suggestive. Under his direction an investigation was conducted to show the cause of death in persons brought into St. Bartholomew's hospital dead or dying, a total of 79 cases being examined in all of which a post-mortem examination was made. The results of this inquiry revealed the remarkable fact that in 48 per cent chronic interstitial nephritis was present. In 16.8 per cent it was the only demonstrable cause of death, and in 21.6 per cent more it played its part either in producing death or in causing the lesion which led to death—that is, together 38.4 per cent. If greater weight of evidence were necessary to establish the frequency of this lesion it is furnished by the table compiled by Mahomed in an endeavor to determine the relative frequency of granular kidneys to healthy kidneys at different age periods. Three hundred and thirty-six cases were examined, 57 of which were over 50 years of age.

Ages	Granular Kidneys found in
10 to 20	2.3 %
30	3.0 %
40	12.0 %
50	38.5 %
60	43.0 %
Over 60	50.0 %

Could more striking proof be furnished of the frequency, and hence the importance of this affection? Its interest does not depend upon its frequency only, but its insidious course and elusive manifestations render it one of the most interesting clinical problems. It is a common cause of sudden death, and as shown by West is often found post-mortem when not suspected. It is many times overlooked in cur-

*Read at the 49th Annual Meeting, Cairo, May 18, 1899.

sory examination of patients and may as frequently be unexpectedly revealed by careful examination. Moreover, by virtue of its great frequency it is often associated with other diseases and it introduces a grave element into their prognosis. I shall make no attempt to consider this interesting condition in anything like a thorough or co-ordinate manner, but shall simply touch upon a few of its aspects which an increasing experience has impressed upon me. Granular kidney has been called a disease of middle life. It is true that it is most often recognized during that epoch, but it may have existed for years and have had its origin in early life. It is an essentially chronic process, indeed, one of the most chronic of all affections extending over a period of years often 10, 15 or even 20 in number. In the vast majority of cases it is not during its early stages that its presence is discovered, but only after the morbid changes have so far advanced as to interfere decidedly with the functional capacity of the kidneys. This is mainly due to the fact that until that point is reached no symptoms referable to the kidneys as the seat of the trouble are apparent, and also partly, I am satisfied, to an insufficient appreciation of the elusive early symptoms of the disease, for at no time in its progress will careful examination fail to elicit evidence of its existence. A beneficent nature has endowed the human organism in essential places with organic provision sufficient to meet any reasonable degree of strain above the physiologic level that may be imposed upon us by the exigencies of life. Accordingly, we are provided with lung tissue largely in excess of the capacity for aëration necessary in ordinary physiologic living, so that we are enabled, without difficulty, to meet emergencies, and so it is that extensive organic impairment of lung tissue is compatible with a fair degree of health and usefulness. We see this admirable arrangement duplicated in the kidneys—organs which are even more abused than the lungs, even more frequently called upon to protect the system from the results of our excesses. It is cer-

tain that there is a far greater supply of renal gland tissue than is ever required in physiologic living, and which can be dispensed with without discommoding the individual so long as ordinary conditions prevail. The degenerative changes which are the special feature of the glanular kidney advance very slowly and may exist months, and even years, before the renal tissue has been so far encroached upon as to render the organs incapable of the proper performance of the work demanded by normal conditions. It is then only that a distinct and unequivocal symptom complex becomes apparent. Ralfe indeed states that it is only when two-thirds of the kidney substance has been destroyed that toxemic symptoms are manifest. When this point is reached the symptoms of a chronic advancing uremia, combined with distinct urinary abnormalities, render the condition very easy of recognition, but, unfortunately, by this time the period for usefulness has to a large extent gone by, and all that remains is to compromise with existing conditions, conserve the badly damaged organs, and prolong an existence, often miserable enough. Such a point is not usually reached until years after the degenerative lesion was first originated. If by good fortune the disease is discovered in its incipency, before the organs are greatly hampered, a very promising field is open to our endeavor, and by judicious management further advance may be arrested or so far retarded as to enable the patient to live in comfort and usefulness many years.

Our attitude towards the disease must not be one that regards it as a purely renal lesion. Primarily it may be so, but it soon becomes much more than that. The changes accompanying its development are widespread, seriously involving the circulating organs and disturbing many of the systemic functions.

It is not too much to say that the majority of cases of chronic interstitial nephritis are never discovered and that apoplexy and heart disease frequently usurp its rightful place upon mortality records. This is not because the diagnosis

is difficult, but because there is little in the symptoms to draw attention to the kidneys.

The initial stages of the disease present the greatest difficulties to a precise diagnosis, and it is this phase I would discuss. The early symptoms are indefinite and not such as to excite the alarm of the patient so that the physician is seldom consulted until the disease is well advanced. If the patient seek early advice it is usually for the relief of some symptom not referable to the kidneys. Opportunities will always exist and frequently arise that will enable us if our attention be awake to the significance of certain alterations to discover the disease. Thus granular kidney is the special condition which is likely to be accidentally revealed by examination of the urine for life insurance. Likewise the systemic disturbance of acute febrile disorders may intensify latent symptoms so as to lead to its discovery. Many an obscure nervous, circulatory, or digestive condition in the middle-aged will become easy of interpretation in the presence of a thickened artery, heightened tension and polyuria. The frequency of this degeneration during the latter half of life certainly warrants an invariable analysis of the urine whenever obtainable, although there may seem no special indication for it.

The symptoms of chronic interstitial nephritis fall into two groups; those referable to the kidneys, and those arising from alterations in the circulatory apparatus. The renal symptoms are, as a rule, much more tardy and latent than the cardio-vascular. When present during the earlier stages they consist of a moderate polyuria principally nocturnal, an inconstant albuminuria and reduction of urinary solids. The only urinary symptom at all constant during the early stages is polyuria. This is not excessive or troublesome, and is usually more noticeable at night time, compelling the patient to rise once or more to relieve the bladder. This symptom is of easy and gradual onset and unless extreme, is accepted without concern by the patient, who usually does not regard it as peculiar, but on the contrary,

may look upon it as beneficial to pass so much urine, and it may require close questioning to determine its duration. When no vesical or prostatic cause exist to account for the symptom its presence as an acquired habit in people of middle age is extremely suggestive of commencing granular nephritis. Aside from this manifestation, the renal symptoms are the latest to develop, and we must perforce depend upon physical signs for our diagnosis. These are referred to the circulatory system, and are the evidences of cardiac enlargement, thickened arteries and high arterial tension. Cardiac hypertrophy is a pretty constant accompaniment of granular kidney, Goodhart's post-mortem average being 89.6 per cent. Ewald's 84 per cent, and Kanthack and Holmes' 90 per cent. A displaced and forcible apex beat together with alterations in the cardiac sounds usually furnish an easy clue to the ventricular hypertrophy although it is by no means uncommon for it to exist in moderate degree and yet be impossible of demonstration. The vascular condition is more easily demonstrable as a rule, and perhaps more constant. The arteries are felt to be hard and not easily obliterated by pressure, full between the beats and feeling like fibrous cords underneath the examining finger. At the same time the arterial tension is persistently raised as can be readily perceived by the finger, or demonstrated by means of the sphygmograph. This increased arterial tension is one of the most suggestive evidence of interstitial nephritis, and when combined with thickened arteries is most frequently the earliest manifestation of the disease. Mahomed's view since supported by Goodhart, and recently agreed to by West, was that these were the early initial stages of granular kidney. This combination of conditions occasionally gives rise to a symptom which may be the first positive declaration of the disease, and its occurrence is full of suggestiveness. I refer to hemorrhage. This most often takes the form of an obstinate epistaxis arising spontaneously or following exertion, such as cough-

ing; lifting heavy weights, or straining at stool. Less frequently apoplexy, subconjunctival hemorrhage, hematemesis, hemoptysis, and hematuria occur. Within my recent experience the discovery of the renal lesion has been due in three instances to epistaxis, in one to hemoptysis, and in another extremely interesting case, to severe spontaneous renal hematuria. Although hemorrhage may constitute the symptom that first leads to diagnosis, in the majority of such cases the disease is well advanced. Hemorrhage occurs most frequently in patients beyond middle life in whom some degree of arterio-sclerosis is present, but even in the young, granular kidneys must not be disregarded as a cause of repeated epistaxis. During the initial stage of the disease the changes in the urine, although characteristic, are in the majority of instances extremely difficult of satisfactory demonstration. Albuminuria is slight, often amounting to but a faint trace, with the most delicate tests, or it may be absent altogether. When present it may vary much in amount at different times, or may disappear entirely for considerable periods. It may be so elusive as to require the analysis of several specimens to discover it and in rare instances it may be absent during the entire progress of the case. It frequently assumes a cyclical character, appearing in the urine of activity or after eating and entirely disappearing in the urine of quiescence and recumbency. It is clearly evident from its inconstant character that too much significance is not to be attached to its absence. We must not, however, allow its occasional absence to detract too greatly from the value of albuminuria in the diagnosis of interstitial nephritis. It will always be a symptom of much import, especially when found in the urine of patients of middle age, even if its amount be slight and its occurrence irregular. The specific gravity is in most instances persistently reduced several points below the normal, and curiously enough conditions such as vomiting, diarrhoea, and profuse perspiration which ordinarily cause concentration of the urine,

do not have the effect of raising the density to the normal standard. Volumetric analysis of the collected twenty-four hours urine will reveal a diminution of urinary solids, especially of urea. The microscopic findings are singularly elusive and it may require the most painstaking search of the urine sediment to reveal anything abnormal. Hyaline casts can usually be detected if the centrifuge be used and proper illumination is employed. They are sparse in number, exceedingly light in texture, and extremely difficult of detection except in highly centrifugalized sediments. With a urine so nearly negative in comparison with the usual standard of pathologic variation, many instances of the disease must inevitably escape detection unless we depend upon other means than the urine for our diagnosis, or combine with our urinary findings the information elicited by physical examination. We must dismiss from our minds the belief that the presence of albumin and casts in the urine is absolutely essential to a diagnosis of nephritis, and cease from attaching any negative inference to the results of the analysis of a single specimen. We must impress firmly upon our minds the value of a thickened artery, and be alive to the significance of a heightened tension. In general, but two things can result in thickened vessels, and increased tension and they are atheroma and interstitial nephritis. If the former element can be eliminated we should search well to confirm the latter; indeed, we should investigate all cases, for atheroma and granular kidney frequently co-exist. With our consciousness awake to the special significance of such manifestations, even if present in but moderate degree, and with our minds disabused of belief in the overwhelming importance of urinary findings, I am sure much greater certainty of conclusion will result, and many more cases of granular kidney will be revealed, and at a period while still amenable to treatment.

I have been much impressed by the influence of the hereditary element upon the prognosis of this affection. The hereditary character of interstitial nephritis has

attracted the attention of many observers, and numerous records have been made of cases occurring in different members of families. The annals of everyone's practice will sooner or later furnish instances of this hereditary association. Curiously enough, the risk to the offspring of those who have died of Bright's disease is practically ignored by insurance companies. This hereditary predisposition as an etiology factor is regarded in a very conservative manner by writers upon the subject. I believe it to be a much more important element than is generally credited, and a far more frequent one. It is true that it is impossible save in a few instances to elicit a direct history of Bright's disease, but it must be borne in mind that many, perhaps the majority of cases, of granular kidney are never identified as such and that apoplexy, heart disease, gout, dropsy, may be the various aliases under which the disease in former generations has masqueraded. I believe it a significant fact to elicit a history of any one of these as a family complaint. It may seem but a matter of clinical interest to thus trace a relationship between a present nephritis and a former apoplexy, but it has far greater importance than the satisfaction of clinical curiosity. My experience leaves me in no doubt that an inherited vice of constitution plays a most insidious and disastrous part in the progress and termination of interstitial nephritis. Such cases bear no mark of identification to distinguish them from others save in their more rapid downward course and greater resistance to treatment. Not only will the clinical manifestations in cases marked by an inherited taint be found more unyielding, but our utmost efforts may fail of the happy results obtained in the non-hereditary type, and comparatively little influence be exerted in staying the progress of the degenerative changes. I do not mean to imply that the course of such cases is a rapid one toward a fatal termination, but rather that they are much less readily influenced in a favorable way by dietetic and other measures, and that their course is more un-

fortunately eventful and more uniformly progressive.

The obstinacy to treatment that these cases present is all the more remarkable because we are dealing with a disease which in its early stages responds in a flattering manner to treatment. It is surprising that so little note has been taken of this influence in prognosis, for I can find no reference to it in the literature at my command. Our forecast must be a conservative one when it is a feature of the case.

MOVABLE KIDNEY.*

BY A. E. HALSTEAD, M. D., CHICAGO.

Prof. Anatomy and Associate Prof. of Principles and Practice of Surgery and Clinical Surgery, Northwestern University Medical School; Prof. Rectal Surgery, Chicago Polyclinic; Attending Surgeon Cook Co. Hospital.

Movable kidney, although one of the commonest pathological conditions encountered in the practice of medicine, is still by many wrongly interpreted. By some regarded as a mere anatomical curiosity having no practical significance; by others of great importance sufficient even in uncomplicated cases to cause disturbances of the chief functions of the organism thereby endangering the life of the individual. The latter view was held by Keppler, who regarded every case as demanding surgical treatment and advocated the removal of the offending organ as soon as it "caused any disturbance of the system." Following this advice many healthy kidneys were removed and a number of lives sacrificed. Lindner, in 1888, was able to collect 36 Nephrectomies for movable kidney with 9 deaths, giving a mortality of 25 per cent. Happily, surgeons today do not endorse the radical views held by Keppler, and no one would advise the removal of a movable kidney in the absence of other positive indications. Unfortunately, the opposite opinion, that of regarding movable kidney as possessing no serious clinical features though less dangerous, is held by too many today. We must admit

*Read at the 49th Annual Meeting, Cairo, May 18, 1899.

that this condition in itself seldom terminates fatally. On the other hand in nearly every case it produces symptoms which render the life of the individual one of constant suffering and in not a few acts as the determining cause of other and more serious maladies.

In order to understand the pathogenesis of movable kidney and to properly appreciate the factor necessary for its retention after it has been replaced in its normal position a brief description of the topographical anatomy of the kidney seems to me essential.

The kidneys lie behind the peritoneum on the upper part of the posterior abdominal wall, close to the transverse processes of the vertebra and mostly inclosed within the bony cavity of the thorax. They extend on each side from the lower border of the 11th dorsal to the lower border of the second lumbar vertebra. These upper and lower limits are not constant, but are those found in a large percentage of the cases examined. Variations in the upper and lower limits of the kidney are common but anything greater than the height of a vertebra is to be regarded as pathologic. Cunningham describes the kidney as being nearly constantly, under normal conditions, in the epigastric zone above the level of the subcostal plane, seldom reaching below the level of the upper border of the third lumbar vertebra. The right at times projecting one-fourth of an inch lower than the left with the lower pole about 5 cm. above the iliac crest. Pansch found that transverse sections of cadavers through the body of the third lumbar vertebra, and two finger breadths above the iliac crest only exceptionally exposed the lower poles of both kidneys. He placed the average upper limit as on a level with the middle of the spinous process of the 11th dorsal. Von Helm, in 104 cadavers (70 male, 34 females), found that the upper and lower limits of the kidney were subject to considerable variation being as a rule lower in women than in men. He considered the upper limit as being in the

male the 11th and the female the 12th costo-vertebral articulation. The lower limits he found quite inconstant at times, being as low as the crest of the ilium. These, however, must be regarded as pathological.

Most anatomists describe the right kidney as being situated lower than the left. Von Helm found this to be the case in two-thirds of the subjects examined; Pansch in one-third. Quain's Anatomy places the right as one and one-half cm. lower than the left. Others hold that both lower poles are on the same level and any variation is to be regarded as abnormal. Among these are His, Sappey, Luschka and Rudinger. Under normal conditions the difference in the lower limits of the two kidneys is very slight if any.

From a practical standpoint the relation of the 12th rib to the kidney is of importance. This rib presents great variations in the extent of its development, and in its relations to neighboring structures. It may be entirely absent on one or both sides or it may be so short and attenuated as to render it impalpable. Holl found anomalies in development to be present in every third or fourth case. The right being more frequently imperfectly developed than the left.

Recamier (cited by Wolkow) did not find it absent in any of the 50 cadavers he examined with this end in view. In 12, however, it was so short as to be indistinguishable excepting by its mobility from a transverse process. In 14 cases its length varied from four to one and one-half cm. Under normal conditions the 12th rib is parallel with the 11th, and crosses the posterior surface of the kidney at an angle of 45 degrees, dividing it into a superior or thoracic, and an inferior or abdominal segment. The relative parts of the kidney represented by these segments are as 3.5:5.

In cases where there is a failure of development of the 12th rib its course is not parallel with the 11th, and the angle formed by it and the kidney is not constant. Variations in the relative size of

the thoracic and abdominal portions of the kidney even to entire absence of the thoracic which normally represents the greater portion may be encountered.

The anterior surface of the kidney, in the fœtus lobed in the adult smooth, is directed forwards and outwards, and is covered by peritoneum throughout its entire length. On the right side $\frac{2}{3}$ or $\frac{3}{4}$ is covered by the liver and separated from it by the peritoneum. It is also beneath the hepatic flexure of the colon being in close relation to the same when a colic mesentery is absent. In this case the peritoneum passes from right to left from the anterior surface of the kidney immediately over the colon and descending duodenum binding these three organs closely together. According to Jonnesco the Pars Descendens Duodeni is normally in intimate relation with the anterior surface of the right kidney. The extent of surface of kidney in contact with the colon and duodenum is influenced according to Braune by the degree of distention of these intestines.

The left kidney is in relation anteriorly in its upper third with the spleen and its lower two-thirds with the splenic flexure of the colon. Its inner border abuts the cardiac end of the stomach. Part of it lies beneath the pancreas, which is grooved for the renal vessels. The ascending duodenum is in relation to a variable extent with its lower third. In the U-type of duodenum the surface in relation with the left kidney is greater than when the V-type exists (Jonnesco). The posterior surface, inclined inwards is flat and lies against the crura of the diaphragm which separates it from the last rib, the last intercostal space and the lower part of the pleural cavity. Intervening between it and the quadratus lumborum muscle against which it rests is the anterior layer of the lumbar fascia. The upper third, and at times, the upper half of each kidney lies therefore above the lower limit of the pleural cavity. The relation of the kidney to this cavity explains the displacement of

these organs which so commonly is noted in exudates into the pleural cavity.

The external surface, also directed posteriorly, is likewise separated above by the diaphragm from the last rib, and the last intercostal space and below from the quadratus lumborum by the aponeurosis of the transversalis muscle.

The internal border, concave, and directed forwards rests upon the psoas magnus. This muscle which inclines from within, outwards and downwards, forms the lower and inner boundary of a fossa, the upper and inner boundary of which is the crura of the diaphragm; the quadratus lumborum with the anterior layer of the lumbar fascia in front of it forms its outer wall. These fossæ, one on each side of the vertebral column (Paravertebralen Nischen), are considered by Wolkow and Delitzin to be the chief support (Sustentaculum Renis) of the kidneys.

Of the structures that have a more or less important influence upon maintaining the kidney in its normal position may be mentioned the peritoneum, together with the so-called peritoneal ligaments, the subperitoneal fascia, the adipose capsule and the fascia or capsula propria. Indirectly the renal vessels and the neighboring organs particularly the pancreas and the adrenals aid in supporting these organs. Other factors such as the general intra abdominal pressure and the suction action of the diaphragm undoubtedly to a certain extent assist but can not be classed with the fixation apparatus proper of the kidneys.

The parietal peritoneum extending from the posterior abdominal wall over the suprarenal body, the upper half or two-thirds of the right kidney, the hepatic flexure of the colon, the descending duodenum and the vena cava, passes upwards to the inferior surface of the liver. The peritoneal folds extending between the liver and these organs form the so-called peritoneal ligaments which are regarded by many of supreme importance in the fixation of the kidneys. The ligaments

chiefly concerned in the support of the kidneys are first, the lig. hepatorenale, consisting of a strong peritoneal fold connecting the outer margin of the right lobe of the liver with the upper-end of the right kidney. Second, more internally a fold passing from the under surface of the right lobe to the superior curve of the duodenum, and from there continued to the anterior surface of the right kidney. Third, a band of peritoneum passes from the neck of the gall bladder to the superior curve of the duodenum (lig. cystico-duodenale), and from there is continued with the lig. hepato-duodenale to the anterior surface of the kidney. These folds of peritoneum are not always distinct but are frequently blended together. This led Jonnesco to designate them collectively the lig. hepato-reno-duodeno-colicum.

The lig. hepato-duodenale (the right free edge of the gastrio-hepatic omentum) which contains the bile ducts, is a part of this broad fold of peritoneum described by Jonnesco. Traction on this ligament and consequent kinking of the choledochus is considered by Weisker as the rational explanation of the jaundice that is occasionally associated with movable right kidney.

On the left side the splenic flexure of the colon covers the superior pole of the kidney and is held firmly in place by the phreno-colic ligament which is given off from the diaphragm between the 10th and 11th ribs.

A strong connective tissue lamella formed by the fusion of three layers of peritoneum binds the anterior surface of the left kidney firmly to the parietal peritoneum.

The value of these peritoneal ligaments as supports to the kidneys is questioned by many. The arguments advanced by those who do not consider them of any practical value in holding the kidneys in position are first, that the right kidney which gives attachment to these ligaments is more frequently displaced than the left, which lacks their support. Second, they

are not directly attached to the kidney, but separated from it by connective tissue containing more or less fat and therefore can not materially aid in the fixation of the kidneys. The experiments of Wolkow and Delitzin show that even when these ligaments are intact, that on opening the abdomen with the cadaver in the vertical position the kidneys will glide down behind the peritoneum for a considerable distance.

We may therefore consider that these peritoneal ligaments, although they may help in supporting the kidneys, are not the chief factors in preventing them from leaving their normal locality.

The fatty capsule is regarded by some as being the chief support of the kidneys. Landau considers it as the *immediate means* of support and concurs with Bartholin in his statement that it is deserving of the title of ligamentum renis. This capsule first described by Haller under the name of capsula adiposa is derived from the lamina fibrosa of the fascia propria peritonei, which on reaching the kidney divides into two layers one passing behind (fascia retrorenal of Gerota), the other with the peritoneum transversely over its anterior surface. At the upper end of the kidney these two layers coalesce and separate it from the suprarenal body. Below they unite near the brim of the pelvis, where they gradually become indistinct and are lost in the pelvic subperitoneal connective tissue.

The kidney which lies loosely in the capsula adiposa is firmly surrounded by its tunica propria. The fatty capsule is joined to the tunica propria by bands of connective tissue. In the region of the lower pole of the kidney the connective tissue fibres are especially strong, binding the tunica propria to the fatty capsule and the two layers of the fatty capsule together, forming a pocket in which the kidney rests. The anterior layer of this capsule is rather firmly connected with the peritoneum by connective tissue fibres, its posterior layer is loosely adherent to the fascia covering

the muscles in the posterior abdominal wall. According to English the posterior layer passing upwards to the diaphragm is especially concerned in supporting the kidneys, and was named by him the ligamentum suspensorium renis. The practical value of this portion of the capsule connected with the diaphragm is shown by the experiments of Wolkow. In the cadaver in the vertical position with the abdomen opened the capsule allowed a certain amount of sinking down of the kidneys; further forcible traction on the capsule caused distinct downward descent of the diaphragm. Again when the posterior attachments of the capsule were severed, the body being in the vertical position, the kidneys descended and became flexed on themselves and appeared almost spherical. Wolkow concludes that even though the capsules may not be sufficient to keep the kidneys in place it undoubtedly is an important factor in preserving their normal shape when the body is erect.

The other direct means of fixation, viz.: the adrenals and renal vessels are of relatively slight importance. The adrenals are firmly attached to the posterior abdominal wall and do not follow the kidneys when they become movable. The union between the kidneys and adrenals is slight, and not at all sufficient to be of real value in anchoring the kidneys. The renal vessels passing horizontally from the kidneys toward the median line can offer in themselves but slight resistance to the downward and inward excursions of these organs.

From the foregoing consideration of the means of fixation of the kidneys it will be seen that any one alone of these factors would be inadequate to support them. Combined with the general intraabdominal pressure and the aspiratory action of the diaphragm, together with the support furnished by a relatively intact abdominal wall and with properly formed paravertebral fossæ, they are sufficient to retain the kidneys in their normal position and prevent any but very slight movements of these organs.

Great difference of opinion exists as to the question of whether or not normal kidneys are influenced by the movements of the diaphragm, that is to say if they possess a normal respiratory movement. Landau holds that "during life the kidneys remain almost immovably fixed. Even deep inspiration does not depress them." Kuttner is equally as positive in his statement which he based upon the examination of a large number of cases. He classed all having respiratory mobility as pathological. On the other hand Curschmann maintained that, in all cases, under normal conditions, demonstrable changes in the position of the kidneys result from respiratory movements of the diaphragm. He considers all kidneys as movable, the pathological degree of mobility he designates as *ren hypermobilis*. Israel believes that in every case where no adhesions exist the kidneys are influenced by respiratory movements of the diaphragm, but not to the same extent as the liver and spleen. Further, the left, because of its more intimate relation to the diaphragm, has a greater degree of mobility than the right.

The experiments made by Wolkow and Delitzin on the cadaver demonstrate conclusively that the kidneys are both influenced by the movements of the diaphragm, and also that at the height of inspiration the left is more depressed than the right. They also showed that in no case under normal conditions could the kidneys be forced sufficiently low to permit of palpation.

The etiology and pathogenesis of movable kidney is still largely a matter of speculation. This is due to the scarcity of post mortem records and for the reason that when post mortem examinations have been made, even when pronounced symptoms were present during life, very little evidence was found to indicate the manner of development.

The frequency is also a subject of considerable difference of opinion. Rollet, on examination of the records of Oppolzer's clinic, found that one case of movable kid-

ney was encountered in every 250 patients examined. Hertzka was able to find it in only 1.1 per cent of 6,000 cases examined. Glenard, in 950 patients treated for gastrointestinal disorders, found it in 145 or 15 per cent. In 500 gynecological cases examined by Edebohls, 90 had movable kidney. From these figures it will be seen that we may safely say that one out of every 5 or 6 women have movable kidney of such a degree that it can be recognized by palpation. Again, taking the records of all of the most reliable observers we find that 80 per cent are found in women and 20 per cent in men.

One of the most generally accepted theories concerning the origin of movable kidney is that of Glenard, who considers this condition only a part of enteroptosis, or general displacement of the abdominal viscera. He maintains that all of the symptoms ascribed to movable kidney may be present before or in the absence of any recognizable dislocation of these organs. ("La prétendue maladie du rein mobile peut exister sans rein mobile.") According to Glenard these symptoms are occasioned by a general relaxation of all of the supports of the abdominal organs and not alone to mobility of the kidneys, which may or may not participate in this general descent. Unquestionably, as a consequence of a loss of tonicity of the abdominal walls associated with relaxation of the structures which support the abdominal organs, there may be a downward displacement of the abdominal viscera, *en masse*, which in a negative way acts as an etiologic factor producing movable kidney. The displacement of the kidneys in such cases must not however be regarded as the result of traction made upon them by the sinking down of the abdominal organs, but as a result of the loss of support furnished to the kidneys by the neighboring organs when in their normal position and from a disturbance of the general intraabdominal pressure that follows. The theory of enteroptosis can not explain unilateral dislocation of the kidney. It is applicable to a certain number of cases where both kidneys are in-

volved and where in addition there is a relaxation of the peritoneal ligaments, dilatation of the stomach and weakening of the abdominal walls.

Prolapse of the female organs of generation is regarded by Landau as a frequent cause of movable kidney. The agents which act as predisposing or direct causes of this prolapse, such as frequent pregnancies, heavy lifting and tumors of the abdomen likewise exert an influence in the production of movable kidney, but can not be regarded as the immediate cause. It is possible that in some cases of extreme prolapse of the uterus traction through the ureters may be made upon the kidneys as Landau says and produce to a slight extent displacement of these organs.

Menstruation has been considered among the influences contributing to movable kidney by Lancereux, Fourrier and others. These writers assume that at each menstrual period there occurs, as a consequence of the connection existing between the ovarian and renal plexuses, a congestion of the kidney. The increased weight of the organ resulting from this congestion is sufficient to cause displacement of the kidneys. Clinical experience has demonstrated that the symptoms of movable kidney are aggravated by the menstrual period showing that a certain relation exists between the kidneys and the female generative organs, but any causal relation between menstruation and floating kidney can not be easily demonstrated. If such a relation existed floating kidney would be more common than it is.

Absorption of the perirenal fat is held by many to be the most frequent direct cause of movable kidney. This can only be of importance as a causative factor when the fat has been present in great quantity, and has been rapidly absorbed. It can not explain the origin of this condition in children under the age of 12 years in whom there is no perirenal fat found. Again, it would be difficult to explain why the fat from around the right kidney should be more often absorbed than that around the left. This of necessity would occur as we

find that in from 80 to 90 per cent of the cases the right kidney alone is movable. Trauma has frequently been cited as a cause of movable kidney. Kuster believes that it is the most important factor in the etiology of this disorder. Henoch reports a case of an officer who was thrown from his horse striking on his feet, dislocating both kidneys. Other cases are recorded which appear authentic. We must therefore admit that in rare cases trauma resulting from blows or falls, or as a result of muscular action from lifting or straining, the kidneys may be forced from their normal place.

In this brief review of what are considered the chief etiologic factors in the development of movable kidney we see that none can be regarded as the immediate cause, but all as only in a way contributory or predisposing agents.

In considering the fixation apparatus of the kidney we found the so-called supports, viz., peritoneal ligaments, abdominal wall, abdominal viscera, renal vessels and the general intraabdominal pressure all assisted in holding the kidneys in place, but were not the chief means retaining these organs in their normal place. After a careful consideration of what has been regarded as the supporting apparatus we must agree with Wolkow and Delitzin that the most important single factor in the retention of the kidneys is the shape and depth of the paravertebral fossæ in which the kidneys normally rest. If we accept this as true then we should look to a malformation, either congenital or acquired, of the fossæ as the most rational explanation of movable kidney. This view of the importance of the paravertebral fossæ was first advanced by Haller (quoted by Landau), who compared them to a nest. To Wolkow and Delitzin, however, whose anatomical researches have just been published, belong the credit of amplyfying this theory, and of placing it on a scientific basis. After carefully studying the configuration of these fossæ both in cadaver in which the kidneys were normally placed and also in those in which dislocation of

the organs was present, by making plaster models of them, they arrived at the following conclusions, which I wish to quote: "The paravertebral fossæ show a great variety of forms, these varieties show a certain regularity. 1. The upper part of the fossæ corresponding to the arches of the diaphragm show a most material difference between the left and right sides. On the right side the arch of the diaphragm is flatter and reaches the maximum elevation more gradually than on the left. 2. In male subjects the fossæ are deeper and narrower toward the lower end. Their form is more nearly pear shaped. The impressions of the muscles (*quadratus lumborum* and *psaos*), and ribs are more distinct (on the model). These conditions remained unchanged when the body was placed in a vertical position. 3. In the female subject in whom there was no palpable mobility of kidney in the horizontal position the fossæ were found well contoured, distinctly narrowing toward the lower end. On the right side the boundaries were less distinct as were the impressions of the muscles on the plaster casts. On casts made with the cadaver in the vertical position the difference between the right and left sides was more apparent. Here the fossæ appeared broad toward the lower end, shallow and having less clearly outlined borders. In the horizontal position the contours of the right fossæ were still rounded. 4. In cases of unilateral mobility of the kidney the asymmetry of the fossa corresponding to the movable kidney appeared even in the horizontal, but especially in the vertical to have a cylindrical form, shallower and open below. The impressions of the muscles and ribs on the casts could scarcely be distinguished. 5. In cases of bilateral movable kidney these abnormalities reach their maximum. Here, even in the horizontal position these fossæ, cylindrical, open below and shallow; the right deformed to such an extent that insufficiency in fixation of the kidney is evident even on superficial examination. In one case there was present a right sided pleuritic exudate which completely changed the fossa. Our obser-

vations therefore show that it is a fact that there is a variety in the form of the posterior abdominal wall in different individuals, and the possibility of a change in the same individual."

The question if the external configuration of the abdominal wall would not show some peculiarity in persons having movable kidney was then investigated. This was demonstrated to be a fact both by clinical study and by experimental investigation on the cadaver. This fact was first observed by Chartes who saw in a case of right sided dislocation of the kidney a well marked concavity in the lumbar region, external to the erector spinæ.

Wolkow and Delitzin's studies show that particularly in lean subjects a marked variation in form of the lower part of the chest and abdomen can exist. In the male the waist is pyriform in the lumbar region, having a marked inclination forward. The female is more or less cylindrical and particularly noticeable in those with movable kidney.

From this it will appear that the principal factor in the causation of movable kidney and also the explanation of its frequency in the female sex, is to be found in the variations from the normal configuration of the paravertebral fossæ. The frequency of movable kidney in the right side is also explained by the shallowness of the right fossa as compared to the left. The commonly accepted theories regarding the cause of frequency of displacement of the right kidney such as greater weight and lower position of right kidney, the influence of the weight of the liver and the relation between the right kidney and the right ovarian plexus can have as we have seen little influence in forcing the kidney from its normal position.

The *symptoms* attributable to movable kidney vary greatly in their clinical importance in different individuals. In a few no serious effect upon the health is noted even though the kidneys possess a great range of mobility. In other cases even in displacements of the first degree pain referred to these organs and general disturb-

ance of the functions of the abdominal organs may be very great.

The chief symptoms are in many cases referred to the nervous system. These vary from slight degrees of nervousness to a marked neurasthenic state. Pain referable to the back, particularly to the lumbar portion of the spinal column and radiating along the branches of the lumbar and sacral plexus is a very constant symptom.

Intercostal neuralgia has been present in several cases. In two of Landau's cases lumbar and intercostal neuralgia of the left side were present in right sided movable kidney. Gueneau de Mussey made the same observation. Menstruation as before stated aggravates noticeably the symptoms of movable kidney. The pain may be very greatly increased for some days before and after menstruation, though usually it ameliorates as soon as menstrual flow is well under way. As a result of the pain referred to the lower abdomen during menstruation, in many the mistake has been made of treating the pelvic organs considering the case as one of dysmenorrhœa. In a case of movable kidney complicated by nephrolithiasis which came under the author's observation several operations on the uterus had been performed for the relief of the dysmenorrhœa and menorrhagia which were the most prominent symptoms exhibited. Fixation of the kidney and removal of the stone has given complete relief from all pain during the menstrual period.

Many affected with movable kidney suffer from gastric disturbance varying in intensity from slight distress referable to the epigastrium with nausea to severe pain with more or less constant vomiting which have in many cases led to the diagnosis of gastric ulcer or cancer. Bartels attributes the gastric symptoms so common in movable kidney to pressure made by the dislocated kidney upon the descending duodenum thus causing intermittent obstruction with consequent dilatation of the stomach. It would be impossible for a movable kidney to make this pressure on the duodenum inasmuch as the kidney is displaced down-

ward and inward in a direction parallel with the descending duodenum and not against it, and therefore could not exert much pressure on this organ. Again, the same gastric symptoms are found in cases of movable left kidney. Landau considers that traction on the lig. duodeno-renal with kinking of the duodenum is the principal cause of the stomach symptoms. It would appear as if this disturbance could easily be explained if we consider the intimate relation existing between the nerve supply of the kidneys and the gastro-intestinal tract. The kidneys are supplied by the renal plexus which is formed by branches derived from the solar plexus, semilunar ganglion and the small splanchnic nerves. The communication existing between the solar plexus which supplies all of the abdominal viscera and the renal plexus seems to offer the most rational explanation of the symptoms referable to the digestive tract.

Jaundice is an occasional symptom of movable kidney. In some cases it is merely the result of the gastro-intestinal catarrh which is so frequently associated with this affection. In others it is probably due, as Weisker claims, to traction on the lig. hepato-duodenale and consequent dislocation of the common bile duct. Letten thought that direct compression of the common duct took place, but this would seem impossible.

The symptoms referable to the abdominal vessels are those produced by torsion or kinking of the renal vessels and by thrombosis of the renal vein, vena cava or iliac vein.

As a result of the first mentioned condition, there may be in rare cases a bruit which can be heard on auscultation over the infracostal fossa. The first recorder was one observed by Landau. Lately Futterer reports a case in which such a bruit led him to suspect aneurysm of the abdominal aorta. In case of Girard's (cited by Landau) thrombosis of the vena cava was the direct result of compression of that vessel by a movable kidney that had become adherent to it.

Thrombosis of the iliac vein with consequent edema of the leg has also been noted.

Attacks of dizziness frequently associated with cardiac palpitation is another common symptom. These are undoubtedly the result of disturbances of the circulation indirectly through the nervous system; probably from traction on the branches of the abdominal sympathetic. Futterer regards dizziness next to gastric disturbances as the most frequent symptom of movable kidney.

Excepting in cases of pyonephrosis associated with movable kidney, there usually is nothing abnormal found in the urine secreted by the dislocated organ. In a series of eight cases examined by the author in which the Harris segregator was employed to collect the urine separately from the kidneys, in two there were pathological changes found in the urine. In one the presence of a few blood cells suggested the possibility of a stone, which was found on exploration of the kidney. In the second case, a left sided movable kidney, the urine from this kidney showed pus cells while the opposite was absolutely normal.

In certain cases of movable kidney, usually after violent exercise or heavy lifting, the patient is seized with vomiting and severe abdominal pain, so great at times as to cause collapse, and closely simulate intestinal perforation or strangulated internal hernia. Dietl was first to direct attention to these cases which by him were supposed to be due to the kidney becoming fastened in the retroperitoneal connective tissue. To this condition he gave the name of renal incarceration. Nearly all authors writing since the time of Dietl have coincided in this explanation of this phenomenon. Landau does not agree with Dietl, but concludes after a careful consideration of the subject that the symptoms of renal incarceration are mainly caused by circulatory disturbances the result of kinking or twisting of the renal vessels particularly the renal vein. Edebohls, after studying a case of renal incarceration in

which the symptoms immediately disappeared on manipulation of the kidney, believes the cause to be twisting of the renal vessels resulting from the lower pole of the kidney becoming pressed against the anterior abdominal wall in such a way that its further progress downward is arrested, while the upper pole continues to descend, thus causing a rotation of the kidney on its long axis with a consequent twisting of its vessels. This agrees with Landau's views on the subject. The acute symptoms of incarceration usually last in cases, treated expectantly, from 5 to 15 days. In these cases, in addition to the pain, vomiting, etc., one finds a tumor sometimes larger than a normal kidney which is very tender on pressure, and which when manipulated usually will bring on a recurrence of the nausea and vomiting. In addition the urine is often scanty and at times contains blood during first few days. These symptoms, with history of a movable kidney which frequently the patient has known to exist previous to the onset of the acute symptoms, will generally be sufficient to allow us to make a correct diagnosis. In many cases, however, the symptoms may lead us to suspect cholecystitis or appendicitis.

In considering the surgical treatment of movable kidney, it may be remarked that the medical treatment, particularly in the Weir Mitchell "Rest Cure," can be classed only as a palliative measure. Temporary improvement very often results but relapses occur as soon as the erect position is resumed. The treatment by application of abdominal supports or pads is also palliative, and probably never affects a permanent cure. In fact once a kidney becomes dislocated nothing short of surgical measures and the direct fixation of the kidney by some means will hold it in place.

The aim of this paper is to advocate fixation of the kidney in (1). All cases. When after a fair trial of the palliative measures the symptoms still persist. (2). Immediately in all cases where the occupation or habits of the individual preclude

the possibility of benefit being derived from abdominal supports. In these cases no time should be lost in temporizing measures, but operative treatment resorted to in the beginning.

The operative measures for the fixation of the kidney is today practically limited to extraperitoneal nephrorrhaphy as first practiced by Hahn, and published by him in 1881. Many modifications of the immediate means employed in attaching the kidney to the abdominal wall have been advocated from time to time, but the operation is today essentially the same as the one devised by Hahn.

In this operation the usual curved lumbar incision from the 12th rib downwards along the inner border of the erector spinæ muscle and forwards and inwards over the crest of the ileum. The kidney inclosed in its fatty capsule is exposed and the capsule drawn into the wound. After this the next succeeding steps of the operation which comprehended the methods of fixation of the kidneys are not carried out by all operators alike. Of the most generally available means of uniting the kidneys to the abdominal wall may be mentioned, (1) Union of the adipose capsule, opened or unopened, to the edges of the incision. (2) Free exposure of the kidney by incision of the fibrous capsule and suture of this capsule to the abdominal wound. (3) Denudation of the kidney by stripping back the fibrous capsule along its convex border and fixation of the kidney by means of sutures passed through its parenchyma.

To these may be added the method of Senn in which he exposes the kidney, denudes its convex border and then fixes it in place by strips of gauze passed around the kidney and brought out through the lumbar wound.

Another means of fixation of the kidney which may be mentioned is that advocated by Schachner, and tested experimentally on the dog. This consists in making a pouch or pocket between the internal oblique and the transversalis muscles, in which the kidney is placed. His experi-

ments with this method on the dog were not very successful. He, however, regards the operation as practicable and feasible in the dog, but questions its applicability in man. It has not been attempted so far as I know on the human subject and would, it seems, be open to serious objections. The great danger of trauma to a kidney firmly fixed between the muscles of the abdominal wall would be sufficient to prevent its general adoption. Experimentally on the cadaver no difficulty is encountered in making a pocket in the anterior layer of the lumbar fascia in which the kidney can be placed. But this in the live subject would not appear rational. In case the kidney became firmly fixed the pain occasioned by pressure upon it by the contracting abdominal muscles would probably be greater than that due to the mobility of the organ. It must be remembered in this connection that the kidney is not under normal conditions immovably fixed behind the peritoneum, and that in our efforts to retain the kidney in place it is possible that the pain which occasionally persists after operative measures have been employed may be due to an absence of its normal movements.

In this connection may also be mentioned the method employed by Pean of suturing the parietal peritoneum to the transversalis fascia and thus forming a pocket or support for the kidney. This does not appear to have given satisfaction.

The method of fixation of the kidney to the abdominal wall which has up to the present time given the best results (as shown by the statistics of Sulzer and others) is that of opening the fatty capsule pulling as much as possible out of the wound, and then cutting off the superfluous tissue. After this the fibrous capsule is split along the convex border of the kidney, and the edges stripped back from the kidney for a short distance. Sutures, preferable of catgut, are then passed through the cut edges of the anterior layer of the lumbar fascia, the fatty capsule and the fibrous capsule. The kidney is further

supported by strips of gauze packed around and below its lower pole. The abdominal wound is then closed excepting at its lower angle where the gauze strips are brought out. The gauze packing should be allowed to remain for 5 or 6 days at least. After the operation the patient should be kept in bed in the horizontal position for 6 weeks, during which time the general health should be improved as much as possible.

We must admit that the operation of nephrorrhaphy or nephroptosis with the present methods of fixation of the kidney is not all that could be desired, although the results are far from being bad. It would appear that from the suggestion offered by Wolkow and Delitzin regarding the surgical treatment of this disorder, efforts should be directed toward the restoration of the contour of the paravertebral fossæ. The intraperitoneal operation for the relief of movable kidney has been abandoned. Sulzer considers an intraperitoneal fixation justified in cases where there arises a question of diagnosis or where the kidney is adherent to some other abdominal organ. In either case it would be better after exploring the abdomen and freeing the kidney to close the peritoneal cavity and reach the kidney through the extraperitoneal route.

REFERENCES.

1. Keppler, Arch. f. Klin. Chirg. Bd. 23.
2. Lindner, Ueber die Wanderniere der Frauen, 1888.
3. Cunningham, Delineation of the regions of the Abdomen. Tr. Royal Acad. Med. Ireland, 1893.
4. Von Helm, Anat. Anzeiger, 1895.
5. Pansch, Arch. f. Anat. und Physiologie, 1876.
6. Jonnesco, Progres Medical, 1889.
7. Holl, Arch. f. Klin. Chir. Bd. 25.
8. Wolkow and Delitzin, "Die Wanderniere" Berlin, 1899.
9. Weisker, Schmidt's Jahrbucher, 1888.
10. Landau, Movable Kidney in Women, London, 1884.
11. Bartholini, cited by Landau.
12. Haller, cited by Landau.
13. Englisch, cited by Landau.
14. Kuttner, Berlin Klin. Wochschr., 1890.
15. Curschmann, Deutsch. Arch. f. Klin. Med. 3d. 53.
16. Israel, Berlin Klin. Wochschr., 1889.

17. Rollet, cited by Landau.
18. Hertzka, Ueber Dislocation Niere Wien. Med. Presse, 1876.
19. Glenard, Bul. et Mem. Soc. Med. des Hopit. de Paris, 1893.
20. Edebohls, Am. Jr. Med. Sci. 1893; Am. Jr. Obstetrics, 1895.
21. Lancereux, Dict. Encycl. des Sci. Med.
22. Fourrier, Bull. gen. de Therapie, 1875.
23. Kuster, Arch., f. Klin. Chir. Bd. 50.
24. Chartes, cited by Wolkow and Delitzin
25. Geneau de Mussey, Union Medical 1867; Cliniques Med. 1875.
26. Bartel, cited by Landau.
27. Futterer, Tr. Chicago Gyn. Soc. Am.
28. Bartel, cited by Landau.
- Gyn. and Obst. Jr. Feb. 1899.
- Einklemmung, Wien Med. Woch. 1864.
29. Hahn, Operativ Behandlung der Beweglichen Niere durch Fixation, Centralblatt f. Chir., 1881.
30. Schachner, An. Surgery, Vol. 15.
31. Pean, Deuxieme Congres de Chir., 1896.
32. Sulzer, Deutsch. Zeit. f. Chir. Bd. 31, 1891.

PSYCHOLOGY VS. MEDICINE.*

BY J. T. M'ANALLY, M. D., CARBONDALE.

The constant aim of the physician is to heal disease by the shortest, safest and surest method at his command. From the days of Hippocrates to the present, medical men have been investigating the etiological factors, symptomatology and nature of disease and means of prevention and cure. The theory adopted as to the nature and cause of disease has largely determined the character of treatment. Two centuries ago the chemical theory of disease had many advocates. It was claimed that disease was the result of fermentative processes or a predominance of acid or alkali in the human body, and this determined the nature of the treatment adopted at that time.

The blood theory of disease has likewise had its advocates. It was argued that the blood was the principal fluid of the body and if it became unduly attenuated or altered in quality, disease resulted. By drawing off the bad blood, disease would be eliminated by the transfusion of good blood, new life would be instilled and health restored physically, mentally and morally.

The latest theory resulting from scientific investigation may be called the microbe theory. That many of our most formidable diseases are the result of bacteria either directly or indirectly affecting the organism, has been clearly demonstrated. The therapy therefore of this large class of diseases includes Tuberculosis, Anti-toxins and other bactericidal remedies or agencies.

Outside of the regular profession there are also several interesting examples. If you go to the metropolis of your own state and inquire of Mr. Dowie and his followers as to the causes of disease, they will tell you that the cause of all sickness and suffering is sin or Satan, who is the author of evil and that as Jesus Christ comes into the world to destroy the works of the devil, therefore he is the true source of freedom. Jesus Christ cures disease in answer to the prayer of faith. Many examples might be cited of genuine cures wrought this way. If you will go to the little city of Kirksville, Mo., you will find there the seat of another philosophy known as osteopathy. Osteopathy teaches that disease is caused by the displacement of one or more bones interfering with the proper circulation of the fluids of the body and impairing the functions of the various organs. In harmony with this theory, the treatment consists of restoring the displaced bones and improving the circulation by certain manipulations and a long course of massage. Very many persons have availed themselves of this method of treatment and many cures are reported. A school of osteopathy has been established here and students have crowded its halls. Its graduates have pressed upon our legislatures with strong following for recognition. This well advertised system of charlatanry has found ready patronage from all the walks of life and its practitioners are found scattered throughout many of our states.

There has arisen in the latter part of this great nineteenth century a most remarkable system of religious belief combined with the art of healing. It is this

*Read at the 49th Annual Meeting, Cairo, May 18, 1899.

doctrine of Christian science that I wish particularly to consider in this paper. Christian science teaches us that all disease is the product of what is termed "mortal mind," therefore diseases being of mental origin, the only rational treatment is spiritual or mental in character.

Can diseases be healed through mental treatment is a question of widespread interest and of vital importance. If so, under what conditions and limitations? Has mental healing any scientific basis in the laws of nature, or is it a vain imagination or baseless superstition? An honest search after truth is always profitable. Truths have unequal values, but none are unimportant. If the author of Christian science has discovered and given to the world even a single new truth, she should receive our praise. But if she is teaching error or propagating a delusion, her work can result only in harm and should meet with our earnest opposition. The founder of this sect and system is Mrs. Mary Baker G. Eddy, now living in Concord, N. H. In 1866, she claims to have discovered or had a revelation of metaphysical healing. Formerly she had studied and practiced homeopathy, and from this derived some suggestions as to metaphysical healing, drifting from the use of infinitesimal doses to none at all.

In a recent lecture in N. Y. City Mrs. Eddy makes the following statement:

About the year 1869 I was wired to attend the patient of a distinguished M. D., the late Dr. Davis, of Manchester, N. H. The patient was pronounced dying of pneumonia, breathing at intervals in agony. Her physician who stood by her bedside declared she could not live. On seeing her immediately restored by me, without material aid, he asked me earnestly if I had a work describing my system of healing. When answered in the negative, he urged me immediately to write a book that should explain to the world my curative system of metaphysics.

Subsequently in the year 1875 she published a book entitled: Science and Health with Key to the Scriptures. This is the

Christian science text book, and is read along with the Bible in all their churches and religious gatherings. It has reached a large circulation, having passed through one hundred and sixty editions of one thousand copies each. In 1867 the first organization of Christian science was perfected in Boston and is known as the Church of Christ Scientist. It began with a membership of twenty-six, which has now grown to more than 1,200. There are at present 316 organized churches. Upon the authority of Carl Norton, a lecturer on Christian science, there are 10,000 persons who are giving their time wholly to the reformatory and healing work of Christian science. Mr. Septimus Hanna, editor of the Christian Science Journal, in a recent publication makes the claim that there are at least 1,000,000 adherents to the doctrine of Christian science. Ten years ago a writer in the Popular Science Monthly said that the Christian science craze would have its day and die out like the blue glass delusion and other crazes of like character, and that already there were signs that its decadence had begun. In view of its present conditions with nearly 400 churches and 42 institutes, schools and academies scattered throughout the states from Maine to California with a growing literature, it does not seem apparent that this craze has even yet reached its zenith.

Let us briefly notice the teachings of Christian science as a religion.

To get a proper estimate of the Theology of Christian science one should read their text book, Science and Health, with key to the scriptures.

In this there is expressed a belief in God, the Father of all, the Principle of God; in the Bible as a guide to them, to which she attaches spiritual interpretation. In Jesus Christ our great example, the way shown. Their doctrine of prayer is unique. It does not consist of petition. It is silent, never oral. Their religious services consist of spiritual songs, the repetition of the Lord's prayer with its spiritual interpretation, and silent prayer, alternate readings from the Scriptures, and Mrs.

Eddy's book *Science and Health*, with key to the Scriptures.

In the first chapter of *Science and Health* we find the four fundamental propositions of Christian science, as follows:

1. God is all in all.
2. God is good. Good is mind.
3. God, Spirit, being all, nothing is matter.
4. Life, God, Omnipotent Good, deny death, evil, sin, disease.

These propositions read backward mean about the same thing. In elucidation and development of these propositions Mrs. Eddy has written much that is vague, incomprehensible and apparently contradictory. The following are the tenets to be signed by those uniting with the First Church of Christian science, Boston:

1. As adherents of Truth, we take the Scriptures for our guide to eternal life.
2. We acknowledge and adore one Supreme God. We acknowledge his Son and the Holy Ghost, and man as the Divine image and likeness.
3. We acknowledge God's forgiveness of sin in the destruction of sin, and that sin and suffering are not eternal.
4. We acknowledge the atonement as the efficacy, and evidence of Divine Love, of man's unity with God, and the great merits of the Way-shower.
5. We acknowledge the way of salvation demonstrated by Jesus, to be the power of truth over all error, sin, sickness and death; and the resurrection of human faith and understanding to seize the great possibilities and living energies of Divine Life.
6. We solemnly promise to strive, watch and pray for that mind to be in us which was also in Christ Jesus, to love one another and to be meek, merciful, just and pure.

As to the correctness of their theological teachings, we have no discussion. We leave that for theologians to decide.

What are the distinctive features of Christian science as a *system of healing*? This is a question of interest to all and one

concerning which all medical men should have a definite knowledge.

Concerning the discovery of metaphysics in healing, Mrs. Eddy has made the following statement:

"The discovery came to pass in this way. During twenty years prior to my discovery I had been trying to trace all physical effects to a mental cause; and in the latter part of 1866 I gained the scientific certainty that all causation of mind, and every effect a mental phenomenon.

My immediate recovery from the effects of an injury caused by an accident—an injury that neither medicine nor surgery could reach, was the falling apple that led me to the discovery how to be well myself and how to make others so. Even to the homeopathic physician who attended me and rejoiced in my recovery I could not then explain the modus of my relief. I could only assure him that the Divine Spirit had wrought the miracle—a miracle which later I found to be in perfect accord with Divine law. I then withdrew from society about three years to ponder my mission, to search the Scriptures, to find the science of mind, that should take the things of God and show them to the creature and reveal the great curative principle, Deity."

"The Bible was my text book. It answered my questions as to how I was healed; but the Scriptures had to me a new meaning, a new tongue. The spiritual signification thereof appeared, and I apprehended for the first time, in their spiritual meaning, Jesus' teaching and demonstration and the principle and rule of spiritual science and metaphysical healing—in a word, Christian science. I named it Christian, because it is compassionate, helpful and spiritual. God I called Immortal Mind. That which sins, suffers and dies I named Mortal Mind. The physical sense or sensuous nature I called error and shadow. Soul I denominated substance, because Soul alone is truly substantial. God I characterized as individual entity, but his corporeality I denied. The real I claimed as the spiritual and eternal; hence, matter,

its antipodes, or temporal, must be the unreal."

The three following fundamental propositions are held by Christian scientists:

1. There is no such thing as matter.
2. There is no sin, sickness or death.
3. The healing of disease is brought about by right thinking.

Numerous quotations might be made from the writings of Mrs. Eddy and other prominent writers of this faith, proving their belief in the above propositions. "The science of mind shows conclusively how it is that matter seemeth to be but is not." (Science and Health, page 17.) "If Christian science takes away the popular gods, sins, sickness and death, remember it is Christ. Truth, who destroy these evils and so prove their nothingness. The dream that matter and error are something must yield to reason and invitation, then mortals will behold its nothingness and sin and sickness will disappear to their wishes." (Science and Health, page 293.)

Ought we not then to approve any cure effected by making the disease appear to be what it really is—an illusion.

It teaches that matter is the falsity not the fault of existence. Evil is a negation because it is the absence of God. It is nothing because it is the absence of something.

What is termed disease does not exist. It is not mind nor matter.

It must be clear to you that sickness is no more the reality of being than sin is. This mortal dream of sickness, sin and death should cease through Christian science. Then one disease would be as readily destroyed as another.

Include moral as well as physical belief in your efforts to destroy error. Cast out all manner of evil. "Preach the Gospel to every nation. Speak the truth to every form of error. Tumors, ulcers, tubercles, inflammation, pain, deformed spines, are all dream-shadows, dark images of mortal thought, which will flee before the light."

The *method* of cure is subjective and simple.

"Stick to the Truth of Being, in contradistinction to the error that life, substance, or intelligence can be in matter. Plead with an honest conviction of truth, and a clear perception of the unchanging, unerring and certain effect of Divine Science. Then if your Christianity is half equal to the virtue of your plea, you will heal the sick."

The patient may cure himself, or he may have the assistance of another known as a healer. The healer unusually sits beside the patient, speaks encouraging words, reads selections from S. and H., and then closing his eyes remains silent while he concentrates his mind upon the patient and mentally rebukes the disease.

Christian scientists also practice absent treatments. By their methods of metaphysical healing, Mrs. Eddy claims to have wrought many wonderful cures. In a recent lecture published in the Independent Statesman, of Concord, N. H., Mrs. Eddy makes the following remarkable statement:

After my discovery of Christian science, I healed consumption in its last stages, that the M. D.'s by verdict of the stethoscope and the schools, declared incurable, the lungs being mostly consumed. I healed malignant diphtheria; and carious bones that could be dented by the finger, saving them when the surgeon's instruments were lying on the table ready for their amputation. I have healed at one visit a cancer that had so eaten the flesh of the neck as to expose the jugular vein so it stood out like a cord; I have physically restored sight to the blind, hearing to the deaf, speech to the dumb, and have made the lame walk.

In a recent article entitled "Christian Science, What It Is and What It Is Not," I. C. Tomlinson makes the statement that by this method of healing, more than a million of persons have been restored from sickness to health, and that Christian science is rapidly spreading into all parts of the civilized world. In view of such astounding statements, a panic might reasonably be supposed imminent among the doctors, druggists and undertakers. A Christian scientist related to me the fol-

lowing cures which came under her personal observation

Case 1. Mrs. M. G., married, age about fifty, mother of seven children, became affected according to the diagnosis of medical men, with phlegmasia dolens and Bright's disease. Suffered many things at the hands of physicians. She was an invalid for many years. For months she was confined to her bed or in an invalid's chair. Her physician told her family she had but a few weeks to live. She went or was taken to a distant city for treatment by a Christian science healer. She remained three weeks under treatment, at the expiration of which time she was able to return home alone and walked with ease to the church several blocks away from the depot. Her cure was complete and permanent.

Case 2. C. M., a boy six years of age. Had an attack of malignant diphtheria, affecting throat and nasal passages. Diagnosis made by the family. There was high fever and delirium for two days. The next day patient was better and on the following day was able to go out and play. No other treatment given but that of the Christian science healer.

Case 3. Stewart D., a boy five years of age, who had received instruction in Christian science, while playing in the house fell against a hot stove. His face was severely burned on one side. The skin came off of the part burned. He fell to the floor crying with intense pain. His mother who was a Christian scientist, and being present, immediately addressed the child as follows: "Stewart, I want you to remember that God is all—he is all power." The boy repeated this expression, "God is all, he is all power," over and over again. The pain left him instantly and did not return. Within a week his face was well and there was absolutely no trace of scar or other evidence of injury. These cases are related as common illustrations of the testimony of Christian scientists in their weekly meetings. Thus the delusion of curing diseases which "were only imaginary" and injuries which "never existed" is kept up.

In the description of cases there will usually be noticed a lack of scientific accuracy in describing the disease or condition of the patient. One is left to conjecture as to the reliability of diagnosis. Usually there is an apparent effort to make out the case as desperate as possible. The following "beautiful demonstration" is related in the last issue of the Christian science Journal:

"My little girl, then about four years old, came in screaming. I was upstairs at the time, and when I reached the kitchen I saw a pitiful sight. There she stood with her little hands over her left eye, her face and hands covered with blood, and on the floor beside her lay a large pair of scissors. She said her little brother had pushed her and she had fallen with the open scissors, the point of which had pierced her eyeball. I had been in Christian science but a few months and felt greatly alarmed. I quickly tied up her eye, never looking at it, and ran to a neighbor scientist and asked her to call a practitioner who lived close by. She was not at home, and as something had to be done immediately, I felt I must try to make this demonstration myself. I took the child on my lap and commenced treating myself for fear, using the verse from Isaiah, "Fear thou not; for I am with thee; be not dismayed; for I am thy God; I will strengthen thee; yea, I will help thee; yea, I will uphold thee with the right hand of my righteousness." My fear soon abated and I know that God would help us. I also used the 121st Psalm. "I will lift up mine eyes unto the hills from whence cometh my help," etc. The child soon went to sleep; I laid her down on the bed and she slept for about four hours undisturbed; when she awoke she said, 'Mamma, my eye is almost all well now.' As soon as the practitioner returned she came to our house to see what was the trouble. She said the work was done and her help was not needed. Two days after this the bandage fell off and the eye, which had been closed since the accident, had again opened, and I could see plainly the three cornered cut from the scissors. In three weeks one could hardly see any dif-

ference between the two eyes, and to-day one is as perfect as the other."

The publication of this case and similar ones may and probably does tend to popularize this method of healing among people who take only a superficial view of such subjects. Most people care little for theories. They look at facts or what they suppose are facts, and reason as follows: here is a case of surgery treated successfully by Christian science:

"My boy has a hole punched in his eye, therefore I will send for a Christian scientist—he healed the one, therefore he can heal the other." The fallacy of such reasoning is apparent, although it is common. This case just related proves to the true scientist nothing for metaphysical healing. It is evident that the eye received an injury, but there is absolutely no evidence that the injury was anything more than a slight wound, which, unaided, nature would heal in a few days.

In this same Journal another enthusiast tells of the beneficial influence of Christian science upon animals. He quotes from *Science and Health* as saying, "God is the life or intelligence which forms and preserves the individuality and identity of animals as well as man," and relates how the family cat was saved from an untimely death after having fallen into the hands of rude and cruel dogs, which tore the skin off of the under part of the body. Christian science treatment was administered with the most beautiful results. Likewise the family horse had become a convert to Christian science. Formerly he had many naughty traits of character, but these had all disappeared and they had named him Christian science.

The doctrine of the non-existence of matter is held by all scientists and is fundamental. If you admit that doctrine as true, you can readily conclude that pathological states cannot exist and disease is really an illusion. The theory of the non-existence of matter did not originate with Mrs. Eddy. Several philosophers have held the view that matter was nothing but one of the appearances of energy. But

the weight of argument is all against them. All rational thinking denies the truth of it. I am as conscious of my body and its members, of health, of sickness and of pain, as I am of my own existence. If you deny such testimony of consciousness, you may deny everything. One can more easily prove the non-existence of the soul as that the body does not exist. To say there is no body, no clothing, no houses, no mountains pointing heavenward, no rising sun, no twinkling stars, is giving utterance to speech not far removed from insanity. The common sense of the human family testifies as to the falsity of this fundamental doctrine and declares that the human body has a real existence and that sin and sickness and death are deplorable realities.

The doctrine of Mrs. Eddy that all is mind is a reaction from the prevalent materialism of this age. According to materialistic theories, thought is only a product of nerve cells. "The brain secretes thought as the kidneys secrete urine." The brain is not the instrument of the mind, and by means of which mental phenomena occur, but it originates mental phenomena as an effect of nutrition. Neither of these extreme doctrines represent the views of a large class of scientific enquirers after knowledge. Nineteen centuries ago the apostle Paul promulgated the doctrine of man's trinity in unity when he spoke of the body, soul and spirit as one, and the most recent psychological researches indicate that he was right, and that man consists of matter, energy and intelligence in wonderful unity.

INFERENCES AND CONCLUSIONS.

1. Cures are effected by Christian science healers similar in character to those wrought by Faith healers, hypnotists, mind healers, mesmerists, pagan or Catholic priests and Mormon apostles. Christian science cannot establish any claim of superiority over other systems of mental healing. In the early part of this century Prince Hohenlohe, Roman Catholic Bishop of Sardina, performed many well authenticated cases according to Dr. Tuke,

an eminent writer on the influence of the mind upon the body. He was a gentleman of distinguished learning and high standing, and his prayers were efficacious in relieving many that were sick. In many places in Roman Catholic countries and in the Greek churches of Russia, as well as in our own "Zion" here in Chicago, there may be seen many crutches, splints or other apparatus brought there by persons diseased or deformed, and who received such relief or cure that they felt no longer their need.

"Eddyism" undoubtedly may lay claim to many genuine cures; likewise, also, the great professor of magnetic treatment of Nevada, Mo. Nor is there any reason to doubt that the celebrated Dr. Newton, the renowned colored woman of Connecticut, Mrs. Elizabeth Mix and the famous W. E. Boardman, of London, have each effected cures as remarkable, as varied in character and as genuine as any that Christian scientists can produce. What physician is there who has not witnessed the most satisfactory and sometimes astonishing results follow the administration of a bread pill or other placebo. The fact is, that many of the ills that flesh is heir to are so largely imaginary that any innocuous drug or other harmless agency may act as a fulcrum for the mind and bring the most satisfactory results.

2. Metaphysical healing of the present day does not parallel the works of Jesus Christ or his apostles. Christian scientists claim that the injunction of Jesus Christ to his disciples to preach the gospel, heal the sick, cleanse the lepers and raise the dead, applies with equal force to his disciples of the present time and in all ages. It is claimed that their method of healing is the same as that practiced by Christ and by his followers for the first three hundred years. If it be the same in kind, it certainly is lacking in degree. We are told that Jesus Christ healed all manner of diseases and all manner of sickness. The lame were made to walk, the blind to see, the deaf to hear and the dead were brought to life. These cures were wrought

easily, instantaneously and the result was complete and perfect. With Christian science the cures are brought about gradually and are often incomplete and unsatisfactory, relapses frequently taking place. In one instance Jesus Christ healed one that was born blind, another that was lame from his mother's womb; he raised from the dead one who had been in the grave four days. The night before his crucifixion while in the garden of Gethsemane, Peter drew his sword and cut off the ear of Malchus, a servant of the High Priest. Jesus touched the ear and healed him. There is no satisfactory proof that these mighty works have ever been equaled by any practitioner of mental healing or of any other method. All mental healers are unable to dispense with surgery. Mrs. Eddy says: (Science and Health, page 400.)

"Until the advancing age admits the efficacy and supremacy of mind it is better to leave the adjustment of broken bones and dislocations to the fingers of a surgeon, while you confine yourself chiefly to mental reconstruction and the prevention of inflammation or protracted confinement." This is certainly sensible and timely advice. Nearly all suits for mal-practice come in connection with surgery—the physician and the metaphysical healer may make the most serious blunders, but they are covered up, possibly in the grave and are never known.

3. Metaphysical or mind healing, has a basis in the laws of nature. That mind is superior to matter and that it has a wonderful influence over the body, is well understood. Who has not seen and felt the effect of certain emotions acting through the nervous system and affecting blood-vessels and circulation, such as the crimson blush of shame or the pallor of face and coldness of the extremities from fear or sorrow. Who has not felt the exhilaration of joyful news or witnessed the depressing effects of sad news. The tottering and feeble steps of age are made strong and steady by recollections of youthful days. The beauty and bloom of youth are

made to fade and wither by grief and disappointment. What physician has not realized the futility of all remedial measures when hope had fled or witnessed the good effects of cheering words or a bright smile for the sick one.

That certain emotions or mental state of the mother may affect the unborn child is another illustration of the effect of mind upon the body. Whether this be true or not, it is a very prevalent belief among mothers that there is much evidence in support of the belief.

Dyspepsia, vomiting, diarrhœa and jaundice are frequently produced by certain emotions or mental states. Intense sympathy will produce in the witness the same effects that purely physical causes have produced in the patient. The writer recently attended a case of obstetrics. Confinement occurred at night. Just across the street lived a sympathetic friend and neighbor, who knew that labor was in progress. Her sympathy for the patient was such that she developed intense pain in the back and hips to such an extent that rest or sleep was impossible, and the husband was compelled to get up and resort to the liniment bottle and brisk rubbing to relieve the sufferer.

A young lady, the daughter of a country doctor, and well known to the writer at the time of the incident, had the following experience:

One day there came to her father's house an old colored man who had a swollen face and was suffering most intensely from a diseased tooth, which required extraction. The comical appearance and behavior of the old man greatly amused the young woman, who was entertaining other members of the household by imitating him. The mother sharply rebuked the daughter, telling her it was wrong to make fun of the old man and she ought to be made to suffer in the same way. In a little while she began to have a tooth-ache, the face became swollen and the pain became insufferable, so that the father extracted her tooth, al-

though there was no appearance in it of disease.

That the mind may utterly disregard bodily injury or disease, is often demonstrated. The soldier in battle will fight on, not knowing that he has received a wound. The frenzy of the fight renders the mind extraordinarily oblivious to pain. Concentrated attention with strong will power coupled with buoyant hope will sometimes produce remarkable results in the way of ignoring or checking disease. Is it then unreasonable or unscientific to suppose that by utilizing the powers of the mind we may direct that intangible something we call vital force to a diseased organ and promote its healing. Is it not true that healthy mental states promote assimilative and nutritive processes throughout the body, and is there not then some solid foundation in the laws of our being for mental therapeutics.

4. The limitations of mental therapeutics cannot at present be definitely stated. It is absurd to claim that it is a universal panacea. We know that certain mental states may affect the body favorably, and that other mental states may be injurious. That mind treatment is applicable chiefly to diseases classed as functional neuroses is highly probable. There may be perverted and diseased states of consciousness which have no discoverable organic basis and it is reasonable to treat these diseased states of consciousness by calling into action the faculties of the mind. There is no reason why Christian science may not cure a large number of cases that apply to it for treatment. It is altogether probable that 75 per cent of all cases of sickness would recover under favorable sanitary and hygienic conditions without any treatment whatever. That Mrs. Eddy has actually accomplished all the wonderful cures which she claims, will require more than her unsupported testimony to verify. That Christian science is lacking in many of the characteristics of a genuine science; that it is founded upon false promises; that its teachings are incoherent, absurd and contradictory and

that what it has accomplished as a system of healing has been grossly exaggerated, cannot be reasonably doubted.

LEGAL ASPECT.

The law passed by our last legislature and in force after July 1st, makes no restrictions upon practitioners of Christian science or any form of mental healing. It is not the function of a legislative body to prescribe or proscribe any particular system of healing. It is the inherent right of every individual who may be sick, to choose his own method of treatment, unless in so doing he trespasses upon his neighbor's rights. Every person who proposes to treat the sick should be required by law to become so proficient in the fundamental branches of medical education that they will be enabled to properly recognize and diagnose disease. Almost every city and village in our State have local laws requiring a report to the Board of Health of contagious or infectious diseases. All practitioners of the art of healing, including Christian science practitioners, are and of right ought to be amenable to such local laws. Whoever conceals the existence of contagious disease or willfully or negligently fails to report such cases where such report is required by city or village ordinance, thereby endangering the health and lives of others in the community, not only violates law, but he trespasses upon the boundaries of his neighbor's rights. If Christian scientists fail to observe such laws as these, they are a menace to the welfare of the community.

In view of what has been done in the line of mental healing, the public has a right to demand that physicians give it the benefit of this healing agency. It is a pleasant kind of treatment and possibly less expensive than drugs. It cures some cases when medicines fail, and it has no harmful effects following its use. Whatsoever of good there may be in it, it should be taken out of the hands of ignorant enthusiasts and charlatans and utilized by those who know enough of the nature of diseases to recognize symptoms indicating

the fitness for this agency and enough about science in general to realize that a means suitable to remove one condition may be altogether inadequate and unsuitable for the removal of another.

DISCUSSION.

DR. JOHN H. HOLLISTER, Chicago: It occurs to me that while valuable thoughts connected with suggestions were admirably brought out by Dr. Sudduth in his paper, and restated in the paper just read, there is, it seems to me, an erroneous conclusion to this paper, in that Christian science may have its time and place for curing people, and while it may be true that some are benefitted by it, it permits of a fatal neglect in those cases where it is not capable of coping with disease when it is making its firm foothold with the chance or possibility of fatal results. I have the conviction that if the cases of failure in treatment that we have been considering were spread on record beside the others, no argument would be needed to see the folly of Christian science in many respects. In the short time at my disposal I desire to place a case alongside of those of Mrs. Eddy. A young girl, between 20 and 30, whom I had known from the time she was six years of age, was taken with congestion of the lungs. Pneumonia developed. This young woman attended the Christian science church in Chicago and her case was mentioned by Mrs. Eddy repeatedly. The girl was told not to consider herself sick. She endeavored to cherish that fond delusion, but the progress of the disease was steadily onward, and from the sixteenth day to the time of death she gradually became worse and died of acute pneumonia. Her sister incidentally gave me an outline of the progress of the disease, and all this time they were assuring themselves and her that she was not sick. One of the strongest of the believers and most responsible, is the wife of a gentleman who is a physician. Just before her gasping breath he was called in to write a death certificate, and with that certificate she was buried. The interest of our family was such that we called on the morning after death and were invited to view the remains, and if I have seen one in which there was evidence of the extremest forms of sickness and of agony, it was in this case. From the history of the case, as I elicited it, there was nothing but a steady onward progress of this disease as we naturally anticipate it from its inception to a fatal termination, and you will never find this case on Mrs. Eddy's record.

DR. W. X. SUDDUTH, Chicago: We have had a very careful expose of Christian science. This paper, however, is a misnomer, so far as its title is concerned. Instead of being psychology versus medicine, it should be Eddyism versus medicine. The essayist has brought out all the strongest features that Eddyism can claim. However, he has overlooked one point. I am not a believer in Christian science. The name they have adopted is a misnomer in it-

self. I am not bigoted enough to think that there is not a grain of truth in any cult or creed. The two points in Christian science which make it live are, first, the element of suggestion. The other is the state of negation in which the mind is placed by reason of their system of denial. By this system of denial they establish a negative state of mind which is a psychological position, perfectly tenable in combating disease. There is no exposition in any treatise that calls attention to this psychological aspect of the question—this negative state of mind which they establish by their system of self-denial. Christian science has taken a firm hold upon the people. On Sunday in Chicago you can see more carriages assembled in front of the Christian science church than in front of any other church in the city of Chicago. They do away with sympathy. To sympathize with any disease in their tenets is wrong because there is no such thing as disease. The tendency of the doctrine is to establish a system of personal self-aggrandizement or personal benefit. Nevertheless, I concede two things that make it possible for Christian science to live—the element of suggestion, and the negative state of mind that they produce. They kill the emotions, and as I tried to point out in my paper, the emotions play an important part in the course of disease unquestionably. What is it that makes immunity? Why is it that you and I, nurses and priests, go among the infectious diseases and are seldom taken with them? In the history of plagues the people who are panic-stricken are the ones who are usually attacked. Why is it that infection to-day is more virulent than it ever was before? Why is it that more physicians are inoculated to-day than there used to be in times when they did not know anything about the infectious microorganisms? With all our advance in antiseptics, more physicians today are infected than there ever were before, simply because they have learned the absolute virulence of microorganisms; they are panic-stricken, and that emotional state, which is manifested by fear, prepares the fluids of the body and makes them good culture media for the development of microorganisms. Many of our patients lose hope; fear strikes them; they become panic-stricken, and it is your duty and my duty to hold up the light before them. These emotional states play a great part in medicine, and chemical analyses have shown that each and every emotional state has a corresponding chemical reaction.

DR. DENSLOW LEWIS, Chicago: It may perhaps interest some of the members if I supplement the remarks of the essayist by one statement in regard to Dowie and his methods. The essayist has well said, that faith is considered an essential thing in the cure, but those of us, who have had occasion to observe the method, know that in order faith may be sure, he makes it also very plainly evident that faith must be manifest by works, and works, of course, in the case of the poor deluded victims mean contributions, so that when a man with anky-

losis of the knee does not recover as rapidly as he thinks he should, he is assured that he has but little faith, and his faith must become more manifest by more generous contributions. A man may mortgage his farm, or give everything he has, and I believe the Bible says something like this, that all that a man hath will he give for his life or for his health. It is along this line and principle that these people work, and through which they may pride themselves on resembling Christ. Facts should not be lost sight of.

DR. E. W. WEIS, Ottawa: I wish to supplement the remarks made by Dr. Hollister with reference to the failures of Christian science, and if their failures were given more publicity this cult would hang itself in a short time. A case occurred recently in our neighborhood, about a week and a half ago. The healers had been treating a young woman, a school teacher, for consumption. They had been telling her for weeks and weeks that she was not sick; that she would get well, and she believed herself well. She did not get well.

Another case, a young woman, came under my observation, who vomited a good deal in the mornings. She was a believer, and she tried her very utmost to overcome vomiting, but finally gave it up, and a few doses of bromide relieved her.

Another case was that of a little boy who had been subject to incontinence for several years. The Christian scientists tried their best to heal him. They attempted to cure him by their methods for about a year and a half, and finally gave it up. Under generous doses of belladonna, administered by a physician, the little fellow was soon well.

Last summer one of our attorneys, who is subject to hay fever, agreed to give one of the healers \$10.00 a week, and he was promised a cure at the end of two or three weeks. For eight or ten years he had been in the habit of going to Mackinac to be relieved of his paroxysm. This time, however, he was to be cured by a Christian scientist, but notwithstanding their treatment, his hay fever became so bad that he eventually had to go to Mackinac in order to get relief. The explanation in this case was peculiar. One of the healers stated that the reason he was not cured was because the sin in him was a hateful beast and hard to control.

DR. J. E. ALLABEN, Rockford: One would judge from the remarks made by Dr. Sudduth that he believes somewhat in Christian science, and that it has some power in the healing of disease. I wish to be placed on record as protesting against any such belief. We know that in cases of actual disease Christian science is of little or no value. In the case of a fractured bone, as far as the setting of it is concerned, Christian science must stop. When it comes to cases requiring actual demonstrations, Christian science absolutely fails.

DR. J. A. BAUGHMAN, Neoga: The paper interested me very much. Most of us believe more or less in psychological influence in the treatment of certain diseases, but it is

astounding to think that these psychological processes are one of the strongest features of the charlatan. I am not quite sure whether the charlatan or the people themselves are to blame for this state of affairs. It has often seemed to me as though the inscrutable desire for the miraculous, leads to these processes to such an extent as to make them a national folly. From what has been said, I am led to think that Dr. McAnally must have read the work of Zola on "Lourdes," before he wrote his paper. I believe we are inclined to correct in the wrong place when we attempt to educate charlatans that are dealing with the main issues. The only way to overcome the evil effects of Christian science and other cults of a similar nature is to educate not only ourselves, but the public at large.

DR. H. McKENNA, Paris: The fact that Christian science has such a hold upon the people demonstrates to us that we ought to handle it carefully. When we attacked homeopathy one hundred years ago with all the ridicule and condemnation we could, we thought it was the best way to handle it, but it did not work. The people take hold of these things without reason. I do not know the proper method of dealing with this question. We have a great many followers of this philosophy or cult in our town. I desire to mention two cases, one the wife of a railroad man, a hypochondriac. She was treated by fifteen or twenty physicians over the central and eastern part of the state, and being in bed nearly all the time. She finally fell into the hands of Christian scientists and soon got well. They did what physicians could not do.

Another case was the wife of a very prominent politician, who had carcinoma of the uterus. After a physician had diagnosed the case, he told her she would not get well. She went to Christian scientists with the grave prognosis of the physician, and it is said that she recovered.

REPORT OF CASES IN GALL-BLADDER SURGERY AND THEIR SEQUELÆ.*

BY J. E. ALLABEN, M. D., ROCKFORD.
Surgeon to St. Anthony Hospital.

Before proceeding to the report of cases I wish to devote a few moments to the consideration of the function of the gall bladder.

A part of what I have to say upon this question will be an extract from my paper published in the *North American Practitioner* of Oct., 1897, where I made the assertion that the gall bladder was a useless rudimentary organ like the appendix vermiformis. In casting about to find a place

*Read at the 49th Annual Meeting, Cairo, May 18, 1899.

in the human economy where this organ would fit, writers have propounded various theories, none of which in the light of today seem to be entirely satisfactory. Physiologists and anatomists discovered this organ in the human body, and so thought it was placed there for some great work, and ever since the discovery they have been trying to find some use for it. Bold and unconfirmed as may the statement seem, I will say that no sensible reason can be given from a physiological standpoint, for the existence of the gall bladder.

Dr. J. B. Murphy deals with this subject in his essay on "Operative Surgery of the Gall Tracts," (read before the section on Surgery and Anatomy at the 44th annual meeting of the American Medical Association.) He argues that the function of the gall bladder is not that of a storehouse for bile, but that it is "the controller or governor, of the tension of the bile circulation," that it acts regarding the flow of bile from the common duct, in the same manner that the air chamber acts in a fire engine; that is, it induces a steady flow instead of a pulsating one. Dr. Murphy supports his theory by certain facts, viz: That the gall bladder holds but one ounce, and that during digestion at least ten ounces are poured into the duodenum, and that during twenty-four hours forty ounces are secreted; that it is not capable of emptying itself by "inherent contraction" of more than one-half drachm, and therefore the amount added to the bile current from the gall bladder is of no consequence; that the gall bladder does not empty itself is proven by the fact that it is never found empty, either anti-mortem or post-mortem, and that the bile in the bladder is of higher specific gravity than that in the ducts.

These points are well taken and indicate a step in the right direction, but regarding the idea that the function of the gall bladder is to control or regulate the flow of bile, there is much doubt.

If the gall bladder acts as the air chamber of a fire engine, it must be conceded, First: That it possesses an elasticity com-

parable in a certain degree to the air in the air chamber, or to an elastic bulb like that connected with a Paquelin cautery. Second: That there must be an impediment to the exit of bile into the duodenum sufficient to dam this fluid back in the ducts and into the gall bladder with enough force to stretch the tissues of the gall bladder.

As to the first concession, Dr. Murphy states himself that the gall bladder is not elastic, but contains more fibrous than muscular tissue; that it cannot empty itself of more than one-half drachm of bile, and that owing to a lack of elasticity when the gall bladder is punctured the opening made by the needle does not close, but allows the bile to escape into the peritoneal cavity. How then can we attribute to this organ a function like that of the air chamber in a fire engine?

As to the second concession, I would say that we can hardly conceive of a resistance at any point in the tract of the common duct sufficient to dam back the bile into the gall bladder and put this inelastic organ on the stretch.

There is undoubtedly some impediment to the free flow of bile into the duodenum caused by the sphincter muscle at the terminus of the common bile duct and owing to the fact that the last three-fourths of an inch of the common duct passes between the muscular coats of the intestine. If it were a necessity that the bile should flow in a steady stream into the duodenum this peculiarity of the structures at the terminal end of the common duct would tend to cause a constant flow without the assistance of the gall bladder. Therefore, the presence of this organ for such a function would be superfluous.

Again it has been demonstrated that a slight backward pressure upon the bile stream causes resorption and jaundice. Upon this point Foster's physiology says: "Unlike the case of saliva, the pressure under which the bile is secreted never exceeds that of the blood, and is in general very low. When a water manometer is connected with the gall bladder of a

guinea pig, the ductus choledochus being ligated, the fluid may rise in the manometer to about 20 m.m. (Equivalent to about 16 m.m. mercury). But not much beyond. If water be poured into the open end of the manometer so as to raise the pressure much above 200 m.m. resorption into the circulation takes place, and the fluid in the manometer sinks to, or even below, the normal level."

To ascertain the opinion of physiologists of the present day regarding the function of the gall bladder, I addressed letters of inquiry to the department of physiology of two medical schools. Dr. Winfield S. Hall, of the Northwestern University Medical School, I quote in part. He says: "It is true, as you say, that the gall cyst is a diverticulum of the gall tract. Gould says that the gall bladder is 'a reservoir for the bile.'" That the bile is retained in the bladder for some time (some hours), is evident from the fact that bile from the gall bladder contains a much larger percentage of mucus than does that which passes direct to the alimentary tract without being retained for a time in the gall bladder.

Inasmuch as the mouse, the elephant and the donkey are without a gall bladder, it must be evident that this viscus is not essential to life. I would not say that it is without function; rather that its function is to retain the bile, or a portion of it during those periods when it is not required in the alimentary tract, but that this function is not so important but that the gall bladder may be dispensed with altogether."

One might infer from Dr. Hall's statements two things: 1st, that the amount of bile the gall bladder is capable of holding is sufficient to be of importance in the process of digestion; 2d, that by the bile remaining in the gall bladder for some hours, there was imparted to it some substance from its mucous membrane that rendered it more useful in the economy, than ordinary bile.

We have already observed that it would not be possible for one ounce of bile (the

amount held by the gall bladder), to be of special service in the processes of digestion, when the amount of this fluid used in the course of twenty-four hours equals 30 or 40 ounces.

Regarding the second supposition, we would cite the experiments made by Birch & Spong. (See Annual of the Universal Medical Sciences, 1888, Vol. V, P. 336.) In two cases of fistula, they were able to collect and analyze the normal secretion of the gall bladder. The amount secreted was something over 20 c.c. in 24 hours. The reaction was distinctly acid and the chemical examination was as follows:

Water 979.7 parts.

Solids 20.3 parts.

The analysis of the solids gave:

A. Organic-Mucin and trace of albumen.....	12.09
B. Inorganic-Chlorine.....	3.84
Carbon dioxide.....	.29
Sodium (combined with Cl.).....	2.50
Soda (combined with C. O. 2).....	.41
Potassium Salts and Phosphates.....	1.17

The author adds: "The secretion of the gall bladder then contains no bile, salts, or biliary pigments. Physiologically, it was shown not to have any diastatic, or emulsifying action. It cannot possess, therefore, any digestive value."

The Junior Dean of Rush Medical College responded to my inquiry regarding the function of the gall bladder, as follows: "It is difficult to give a satisfactory reply to your question, because our previous notions in regard to the function of the gall bladder must undoubtedly be changed and at present, our knowledge of its function is very indefinite. The generally accepted notion that it is a reservoir for the bile seems utterly illogical when its capacity is compared with the total amount of bile secreted daily, and I think most physiologists today have abandoned that idea of its function. It is thought by some to be an equalizer of pressure in the bile ducts, much like the air chamber in a force pump; but this conception is not fortified by any experiments with which I am acquainted, nor by positive evidence of any sort."

"The idea that it is a rudimentary organ like the appendix seems to me to have

little justification, because it is not relatively larger in any of the animals lower in the series with which I am acquainted, than it is in man. In fact, the conservative position for the physiologist to take in regard to the gall bladder at the present time, I think, is one of judicious diagnosticism. Like the appendix, the gall bladder is of signal service to the operative surgeon; but, physiologically, we know little of its real purpose."

Whether, or not, I am justified in saying that the gall bladder, like the appendix, is a rudimentary organ, may be questioned; but I am sure that I am justified in saying that it is functionless and, therefore, useless. While these questions do not at present have great bearing upon the treatment of diseases of this viscus, yet we are always thirsting for knowledge and it would be interesting to know how it originated and what is its destiny.

The surgery of the gall tracts has been given an immense amount of study during the last six or seven years, and within this period the subject has been so evolved that the proper modes of treatment of pathological conditions in these organs are pretty well defined.

In reporting a few cases I make no claim of presenting facts that will establish new truths, but the experience of every individual varies somewhat from that of every other one and a faithful recital of these experiences is always of some benefit to fellow workers.

It is always a pleasant task to report those cases which have a very successful termination and thus magnify our skill in the eyes of our listeners; but no one has universal success and it is by the unpleasant experiences and complications that we sometimes are most profited; therefore, I have selected a half dozen cases, the most of which have had some trying complication.

CASE I.

Mrs. Mary H., age 62, widow. Has been a strong, hard-working woman all her life. Ten years ago was taken with a severe pain in the right shoulder and

breast; pain radiated to right shoulder blade around to left side of chest, and finally became localized over epigastric and right hypochondriac region. Pain in these regions was intense and was associated with vomiting, which continued until pain was relieved by a hypodermic of morphine. After the attack she sweat profusely and was tender over affected parts for some days. From this time on she had attacks of this character every five or six weeks for a period of one year. She states that she then got some "patent pills" and took from one to two a week, which gave her some relief; would have but one or two attacks each year. During the last year, however, she had three or four attacks. She never had jaundice. (October, 1895, she went to Maine to visit relatives, and while there five months later had an attack of cystitis, on account of which she returned to her home in this city March 18th, 1896. She was under the care of a physician several months for this trouble.) Suddenly on the night of July 17th, 1896, she was taken with severe pain in left side over the region of the spleen, but the pain soon shifted to the locality of the stomach and right hypochondriac region. A physician was called who diagnosed inflammation of the bowels and gave a hypodermic of morphine for the pain.

I saw the case on the 19th, with temperature 102 F., pulse 130. Had had a chill the night before. Abdomen tympanitic over left and lower part, dull on percussion over a region extending from border of ribs on right side downward two-thirds distance to ilium and nearly to median line. I thought I could detect fluctuation, but was not certain. Some induration.

Diagnosis: Intra-abdominal abscess, probably of gall bladder origin.

Operation July 20th, 1896.

An aspirator needle was cautiously inserted at the most indurated portion, two inches below border of ribs at the external border of the right rectus muscle. Three or four ounces of pus ran into the bottle. A three inch incision was then made over the locality parallel with the rectus muscle

and extending inward to the peritoneum, which was found adherent to the abscess wall. A deeper incision carried the knife into the gall bladder, from which escaped three or four ounces of offensive pus and decomposed bile. With forceps five gall stones were extracted, measuring from one-half to three-fourths of an inch in diameter. Drainage was maintained by a rubber tube, replaced in a week with a glass drainage tube, which was worn about a month.

For a few days after the operation considerable bile flowed from the wound as well as mucus and pus, then the absence of bile in the dressings was noticed and never returned again.

The wound healed kindly excepting a small fistulous opening which would close externally for a week or two, during which time the patient would suffer some distress in the gall bladder region. The fistula would then open spontaneously or be opened by the patient when a half ounce of glairy mucus would escape giving immediate relief.

Two months after the operation the patient was enjoying good health, but in walking, an indentation in the abdominal walls was noticeable at the location of the cicatrix and a dragging sensation was complained of which caused a slight limp. The liver dullness also extended downward somewhat below its normal level. These symptoms were due to the fact that at the time the gall bladder was distended with pus it became adherent to the abdominal wall. After relief by operation the contraction of the organ had a tendency to draw the abdominal walls inward and displace the liver downward.

One year and seven months from the date of operation the patient asked to be relieved of the annoyance of the fistula. Believing that the existence of the fistula was due to an occluded cystic duct, I suggested total extirpation of the gall bladder to which the patient consented. The fistula was found surrounded by a dense mass of cicatricial tissue which was excised and removed with the gall bladder. A large mass of adherent omentum was ligated and

released. A forceps with narrow blades was clamped between the liver and gall bladder at a distance from the liver far enough to make it possible to ligate between the liver and forceps. The gall bladder is so intimately connected with the liver that the forceps of course held some of the coats of the gall bladder in its grasp and converted them into a sort of artificial mesentery. By ligating this mesentery in sections with cat gut and cutting between the ligatures and forceps each time, the possibility of hemorrhage was avoided. Having released the gall bladder in this way as far as the cystic duct, the duct was ligated with catgut in two places and severed between the ligatures and the gall bladder removed.

The portion of the duct removed was occluded, and in the fundus of the gall bladder was a pocket containing a stone three-fourths of an inch in diameter.

The wound was closed without drainage and healed by first intention. The patient has had no further trouble.

CASE II.

Mrs. Belle H., aged 41, a large, robust woman, mother of twelve children. The trouble of which she has complained for five years came on very suddenly in June, 1892, with pain at the pit of the stomach, radiating to the back and the right hypochondriac region, and was attended with vomiting. At this time she was living in Chicago, and was attended by a physician who pronounced the ailment bilious intermittent fever. The pain at this attack lasted about eight hours and left as suddenly as it came on. The attending physician said it was followed with inflammation of the stomach. After the attack she was very sore over the region of the stomach and gall bladder, and was confined to bed three weeks. Similar attacks followed at intervals of several months, becoming more and more frequent up to the date of my first seeing her, in April, 1896, nearly five years after the first attack. At this time I diagnosed cholelithiasis, and recommended an operation. I saw her after this in a number of attacks

up to the date of December, 1896, at which time I operated. The attacks were always attended with intense pain and vomiting of bilious matter but without jaundice. Gall stones were never detected in the stools.

Operation, cholecystenterostomy with the Murphy button. The gall bladder was enlarged and its walls thickened. Fifty calculi were removed about the size of peas. The patient recovered rapidly from the shock of the operation, but was very refractory, getting out of bed the morning following the operation during the nurse's absence and drank a large quantity of water, obtained from an adjoining room. In spite of this, however, she made a rapid recovery; but owing to her indiscretion a small hernia developed at the site of the operation. The button was not recovered after a month's watching.

She was entirely cured of her gall bladder trouble and enjoyed good health for a year and nine months when she returned to be relieved of an immense lateral-ventral hernia, which developed at the seat of the operation.

Figs. 1 and 2, are photographs of the patient taken at this time and show a front and lateral view of the hernia.

The operation for the hernia was undertaken September 3d, 1898. By an elliptical incision the old cicatrix was removed and the sack opened. The contents of the sack consisted of the cæcum and entire ascending colon, a large mass of omentum and coils of small intestines. The breach in the abdominal wall was four inches in length and somewhat triangular in shape, the apex being toward the costal arch and its edges separated an inch to an inch and a half.

The omentum which was adherent at the margins of the opening was released partly by ligation and partly by the fingers. Great difficulty was experienced in replacing the viscera within the abdominal cavity, and retaining them there. It was accomplished however by the use of large gauze sponges.

No attempt was made to separate the ad-

herent peritoneum lining the sack. An incision into this peritoneum was made around the abdominal opening about an inch and a half from its margin. This por-

tion was then stripped off around the opening and somewhat beyond its edges into the abdominal cavity. The peritoneal edges were then sewed together with continuous catgut.

The different muscular layers were approximated by interrupted chromacized catgut sutures; their aponeuroses by continuous suture of the same material. The whole was re-enforced by silk worm gut sutures which embraced all the tissues save the peritoneum.

Drainage of the pendulous sack was maintained for a few days with gauze.

The result was satisfactory as shown by Fig. 3. A photograph taken three months after operation.



Fig. 1. Mrs. Belle H. showing front view of hernia.



Fig. 2. Mrs. Belle H. showing lateral view of hernia.



Fig. 3. Mrs. Belle H. Three months after operation for lateral ventral hernia.

In other cases similar to this I should not pursue this method exactly. The tension on the sutures was severe and I had the gravest fears that the vitality of the tissue they embraced would be so impaired that the edges of the opening would separate and the hernia return.

I should adopt the suggestion of Dr. Albert Goldsphon, of Chicago, (Large

Ventral and Umbilical Herniæ in the Adult, with Three Cases of Radical Cure by an Improved Technique. American Gynæcological and Obstetrical Journal for September, 1897,) and pass double wire retention sutures beneath the peritoneum and muscular fascia emerging on the cutaneous surface several inches from the edges of the wound, the ends of which should be held by buttons of iodoform gauze or lead. The entire tension is thereby transferred to these sutures and the pressure placed at a point most suited to bear it, viz: a point remote from the edges of the wound where approximation and not tension is the thing desired.

This use by Dr. Goldspohn of the tension suture was applied in cases of umbilical and ventral herniæ, but it is applicable to lateral-ventral herniæ, for here the same principles obtain.

I should mention that an examination of the gall bladder region at the time of the operation for hernia showed a healthy condition of the parts. The button had passed away and the gall bladder had contracted down into a small inoffensive organ.

CASE III.

Mrs. J. J., a farmer's wife of strong physique. Consulted me first in November, 1896. She gave a history of having suffered pain more or less severe in character for two years, located in the region of the stomach and gall bladder, and radiating to the umbilical region. The symptoms described did not seem typical of gall bladder trouble, and I thought it possible the difficulty was caused from indigestion, and prescribed the remedies usual for such trouble, and also washed out the stomach with a solution of warm boracic acid. For a time this treatment gave some relief, but the distressing symptoms soon returned with increased severity, and an exploratory operation was recommended. She was sent to the hospital and kept under observation for a week, during which time she was examined by a number of other physicians. All agreed that while the symptoms

were obscure yet an exploratory operation was justifiable.

Operation, June 11th, 1897.

The usual incision for gall bladder operations was made and the gall bladder examined; but nothing could be detected through its walls indicating a pathological condition. However, it was deemed best to open the bladder and examine thoroughly for gall stones. This was done with negative results. The gall bladder was then approximated to the duodenum with a Murphy button. The pancreas and surrounding organs were examined, but nothing could be discovered to account for the symptoms complained of. The wound was closed in the usual way, viz: continuous catgut for the peritoneum and muscular fasciæ, re-enforced by interrupted silk worm gut sutures passing through all the tissues except the peritoneum; superficial cutaneous sutures of silk or horse hair.

The patient recovered rapidly and was free from abdominal pain for two or three months when the trouble again returned. Although a faithful watch was maintained for four months the button was not recovered.

I recommended the patient to seek the advice of some Chicago surgeon and she expressed a wish to go to Augustana Hospital, where I took her, and placed her under the care of Dr. A. J. Ochsner. Dr. Ochsner performed a laparotomy on her about four months from the date of her first operation. The Murphy button had released its hold upon the gall bladder and intestine but had migrated upward instead of downward, and had lodged in the duodenum near the pylorus. It was removed through an incision in the intestine. Nothing further was discovered to account for the patient's illness. She made a good recovery from the operation. So far as I know this is the only case in the history of the button where it took such an erratic course.

In my earliest work in this line I maintained that as the gall bladder was a useless and dangerous organ, the more thor-

oughly it was eradicated from the human economy the better it would be, and as the operation of cholecystenterostomy did this most effectually, it was the operation of choice. Some experiences, however, has changed my mind and I now only use the button in cases of permanent obstruction of the common duct. In justice to the button it must be said that it has done more than any other one thing to stimulate the study of gall bladder surgery in modern times, and its benefits in this direction to modern intestinal surgery are only excelled by the brilliant work of Dr. Nicholas Senn, who gave to the profession decalcified bone plates in 1887.

CASE IV.

Mrs. F. P., married, age 27. Menstruated at 17, subsequent menstruations painful and irregular. Married at 22; one year after had a miscarriage and was quite sick for three weeks. Three years later bore a child which is now (June, 1898) two years old. Had inflammation of the bowels three years ago and intermittent fever. Also had an attack of this character previous to marriage.

The present trouble began when patient was eleven years old with a sudden attack of pain in the abdomen along the border of the right costal arch, radiating to the back, right shoulder blade and back of neck. These attacks occurred at intervals of a few months to a few weeks, were usually associated with vomiting, but without marked jaundice. During attacks morphine was taken hypodermically in repeated doses of $1/6$ grain. She has become almost an invalid and unable to perform much labor.

Physical examination reveals nothing except slight tenderness in right hypochondriac region.

Diagnosis: Cholelithiasis.

Operation July 12th, 1898.

An incision three inches long was made over region of gall bladder. Some adhesions were broken up with the fingers. Could detect no stones in the gall bladder or ducts by exploring with the finger.

Gall bladder was contracted and coats greatly thickened. The cæcum was drawn up through the incision and the appendix inspected. The peritoneum about the cæcum was inflamed, the appendix rather long and club shaped. It was removed.

The gall bladder was stitched into the upper angle of the wound and opened. A small quantity of thick tarry like substance flowed out, but no stones were found. Drainage was maintained with a rubber tube.

During the first three days after the operation the dressings were more or less soiled with the tar-like substance after which normal bile flowed freely.

Convalescence was smooth. The patient left the hospital in four weeks, but drainage was kept up by means of a rubber catheter, the pointed end being passed into the gall bladder and the other end into a four ounce bottle which was held in position under a bandage. From two to three and a half ounces of normal bile would drain into the bottle every 24 hours. Drainage was maintained for three months as the patient seemed distressed if the tube was left out. At the end of this time it was removed; the fistula closed in a few days and the patient was comfortable for two weeks when the pain returned.

I then washed out the stomach with a solution of boracic acid in sterilized warm water. The contents of the stomach was very foul. This treatment given daily for two weeks stopped the pain which has not again returned.

The patient is now, nearly a year after the operation, in robust health, having gained 40 pounds in weight. The case was evidently one of chronic cholecystitis, and demonstrated the value of lavage in gall bladder cases of long standing where the stomach also sometimes becomes affected.

CASE V.

Mrs. W. W. T., widow, age 34. Her present trouble began 5 years previous to Aug. 11th, 1898, the time I first saw her. The first attack was sudden pain in the

abdomen at first not localized, finally settling over appendiceal region and along the right side. At this time the weight of the bed clothes could not be borne upon the parts. Was confined to bed three weeks.

Since then she has had attacks two or three times a year the pain being located in the back about the right shoulder blade and in the back of the neck. The pain usually, but not always, associated with vomiting and was followed by soreness in epigastric region for a few days.

She had chronic diarrhoea for four years previous to the beginning of this trouble. During this time she was a starch eater—a habit acquired by an abnormal craving which she had while pregnant with her first child. She would devour a half pound package at a time until finally starch was kept from the house and she was broken of the habit. As soon as she stopped eating starch she was cured of her diarrhoea.

In January, 1898, she had an attack of colic followed by jaundice which lasted a week. In August of the same year when I saw her she had suffered from a severe attack; had been confined in bed a week and had been jaundiced for three days. Physical examination of abdomen negative, except tenderness in right hypochondriac region.

In examining the pelvic organs there was found a lacerated perineum and cervix; a tender uterus in normal position and an enlarged and tender right ovary. For five years she had been treated for "bilious colic," "female weakness," and "neuralgia of the womb." Weight had decreased from 150 to 100 pounds.

Diagnosis. Cholelithiasis with impacted stone in the ductus choledochus.

She was given tonic treatment and hot baths for a week to prepare her for operation. By this time the jaundice had about disappeared. Three days later she had another attack of colic with vomiting and was taken to the hospital at once for operation.

Operation.—Cholecystomy, August 24, 1898.

The gall bladder was adherent to the duodenum. All surrounding tissues hyperæmic. Adhesions were tied off or broken up. A stone could be felt in the common duct under the duodenum opposite the head of the pancreas. The gall bladder was torn open in separating it from the duodenum. The abdominal wound was enlarged by an incision at right angle with the upper part dividing the rectus muscle. A stone could then be reached with the finger and was forced up into the cystic duct. In attempting to force it into the gall bladder the friable cystic duct was ruptured and the stone released. A second stone was delivered in the same way. The gall bladder was enlarged at the ruptured point and sewed to the peritoneum in the angle of the wound. A rubber tube was placed in the gall bladder and gauze was carried down to the point of rupture in the cystic duct in the peritoneal cavity. The rest of the wound was closed and healed by first intention. No bile ever drained through the gall bladder which was much contracted and coats thickened. A moderate amount of bile flowed out by way of the gauze drain for about two weeks; it then ceased and the fistula healed rapidly.

The patient has since had no return of this trouble; she has gained greatly in health and weight. The stones were spherical in shape and about $\frac{3}{8}$ of an inch in diameter. They undoubtedly caused a periodical obstruction of the common duct by ball-valve action, a condition well portrayed by Dr. Christian Fenger.

These patients frequently have chills and their condition is often mistaken for malarial fever.

CASE VI.

Mrs. L. A., age 64. I was called to see her first, April 27th, 1896, to treat her for what she termed a "bilious attack." The stomach was irritable, she had been vomiting some and had a dull pain about the stomach and liver region radiating downward on right side of abdomen and backward to kidney region.

She stated that she had attacks of this character at varying intervals for a year. The pain was not sharp and colicky, but was of a dull, heavy or boring character. Morphine was not required. She recovered from the acute attack but had an uncomfortable feeling about the liver and stomach most of the time. From this time on there seemed to be a gradual failing of health. The urine was frequently loaded with urates but free from blood or pus or other abnormalities, so calculus or other renal trouble was excluded.

After observing the case for some time I suggested the diagnosis of gall stones but it was such an atypical case that I had to confess a lack of confidence to some extent in this diagnosis.

The patient would not entertain the idea of an explanatory operation. I saw her more or less at this time for a month, but not again professionally for one year and nine months. In the mean time she had taken treatment from several physicians and in the fall of 1898 I learned that a tumor had developed in the abdomen in the right hypochondriac region and the diagnosis of cancer of the liver had been made.

I attended her again for two weeks previous to her death which occurred December 16th, 1898.

She had become intensely jaundiced and greatly emaciated and suffered great pain in the stomach and upper portion of the abdomen which was made bearable with codein. Food could be retained but a short time, as vomiting was frequent. A hard tumor could be felt extending from the border of the liver laterally to the median line and downward as far as the level of the umbilicus. A nodular mass several inches in width could be felt at the edge of, and protruding beyond, the right costal arch. After death this nodule could be distinctly outlined through the abdominal walls as the gall bladder full of stones.

At the post-mortem the gall bladder was first opened, two ounces of pus removed and twelve gall stones—two of which are of special interest on account of their great

size. The weight of one (dried) is 195 grains; of the other 162 grains. The total weight of the 12 stones was 647 grains. In circumference the larger one measured $3\frac{3}{4} \times 3\frac{5}{8}$ inches; the smaller $3\frac{1}{2} \times 3\frac{5}{8}$ inches.

The tumor was a carcinoma somewhat larger than a cocoanut which undoubtedly originated in tissues near the liver. The tumor proper however had not invaded the liver, stomach, gall bladder or intestine, except by adhesions.

It is a well known fact that cancer is frequently associated with neglected cases of cholelithiasis. It is presumed that the irritation caused by gall stones is the most important factor in its etiology, yet it is very noticeable that the cancer in these cases seldom originates at the seat of greatest irritation as is the case in cancer of the lip or tongue, but at some point remote.

The explanation may be that the peritoneal and cellular tissue about the viscera are much more susceptible to irritation than the viscera themselves and suffers most from such troubles, and when once started in such loose tissue it merely follows a mechanical law, of progressing in the direction of least resistance.

Diseases of the gall tracts and of the appendix vermiformis are not on the increase; but, thanks to the tireless, noble workers in medicine and its allied sciences, our knowledge of these things is increasing at a rapid rate; and may the day come when our knowledge shall have become so exact and surgical technique so perfect that no man shall die of such diseases of these organs. Perhaps, old Nature, is slowly working out the problem of eliminating these rudimentary and useless appendages, and sometime in the distant future—farther on than the twentieth century—there will be evolved a perfect race, a race without gall bladder or appendix vermiformis.

DISCUSSION.

DR. WILSON, Cairo: After listening to this paper we are led to exclaim that man is wonderfully and fearfully made, and the good Lord understood his business when he made man. A hundred years ago there were some functions of the system that we did not understand. Ac-

According to the theory of the paper, as we do not understand the function of the gall bladder, it is useless and has no function. Analogous to the gall bladder are the vesiculæ seminales. Should they be excised? The bladder is the true reservoir. Because we do not understand the function or the utility of the vermiform appendix, should it be excised, or declared a useless organ? The true functions of other organs may be explained to future generations, and we will find that God Almighty is about correct.

DR. ALLABEN (closing the discussion): I have nothing special to add except to make a reference to the appendix. I feel justified in saying that we have gone far enough in our investigations and scientific studies to conclude that the principles of evolution are upon solid ground, and in regard to the appendix we know enough to say that it is a rudimentary and useless organ without doubt.

DESIRABLE SANITARY MEASURES FOR SMALLER CITIES.*

BY LOUIS E. FISCHER.

Municipal and Sanitary Eng., City Eng., for the City of
Paris, Ill.

Only that is desirable which is applicable. As all sanitary measures that are applicable to larger cities are not to smaller cities we must distinguish between desirable sanitary measures for smaller and for larger cities.

Desirable sanitary measures for smaller cities, herein stated, will include those measures which will fall within the financial possibilities of the people and which will decrease the death rate, promote the health, and add to the comfort of mankind sufficiently to compensate many times over, in dull cold figures, for the cost of putting into effect the specific sanitary measures.

What has brought about the more recent agitation and adoption of sanitary measures for densely populated districts? The fact that it is now universally admitted that about 40 per cent of all deaths are due to diseases of bacterial origin such as consumption, pneumonia, diphtheria, cholera, typhoid fever, malarial fever, diarrheal diseases, measles, whooping cough, small pox and many others. Furthermore,

and more properly from the fact that the deaths due to these zymotic diseases can be materially reduced by the adoption of proper sanitary measures. It is estimated that in the neighborhood of 400,000 deaths occur annually in the United States from these causes. There are over 50,000 of these due to typhoid fever alone. Scarcely a family that cannot name one or more of its members lost in morning of their lives by some form of zymotic disease. Medical men and sanitarians have demonstrated beyond a doubt that these diseases of pathogenic organism origin can be successfully combated. Was it not the system of sewage designed by Col. George Waring that made Memphis an inhabitable city? Was it not due to the removing of the filth, that served as a medium for the growth of these micro-organisms, that avoided the depopulation of New Orleans by pathogenic diseases? What then must we conclude in regard to this matter? That the people are awakening from their lethargy, and are now beginning to rebel against the drinking of sewage-polluted water, the breathing of air contaminated with zymotic disease germs, and the taking of food prepared with a questionable water in a foul atmosphere.

The purpose of sanitary measures is to avoid the transmission of these pathogenic bacteria from the sick to the well. This result can be best accomplished by, first: *removing the causes of contamination*, second: *by the supplying of pure water, food and air.*

The two great sources of nuisances in smaller cities having a population of eight or perhaps ten or more inhabitants to the acre, are privy vaults, including poorly constructed cess pools, and garbage deposits, including carcasses of dead animals such as rats, mice, even dogs, that so frequently adorn the alleys. Among the lesser evils might be stated deposits of horse manure on the thoroughfares, filthy street gutters and long standing water pools. Certainly no member of this medical fraternity doubts the appalling results of these disease breeding nuisances. Every

*Read before the Aesculapian Society of the Wabash Valley at Charleston, Ill., May 21, 1899.

day we see before our own eyes, possibly in our own homes, strong men and women stung by the fangs of this most aggressive foe, the bacteria of zymotic diseases, stricken with an illness that so frequently prove fatal, invariably creates anxiety, and much too frequently causes hardship, poverty, even starvation upon those dependent upon the victim as a wage earner. Strangely enough, had the victim who perhaps fell prey to the ptomain of another's disease germ, been killed by his own carelessness in crossing a railroad track, or perhaps a street crossing, his survivors would have secured heavy damages; but where he dies of the ignorance, indifference or gross carelessness of his fellow citizens in not providing such sanitary measures as even swine practice, the thought of fixing even the cause of death to other than the "Will of God" is not even entertained.

Almost every city of over 5,000 inhabitants, well and good, provides fire protection, at a considerable expense, to fight the fire foe in his desire to destroy property. How many cities of this class provide even one-fourth such protection to fight or rather combat the ravages of pathogenic bacteria? Yet how much greater is the annual loss from the latter?

The idea of placing a money value upon a human life is frequently ridiculed. Yet in law \$10,000 is frequently placed as the value of the life of a vigorous man or woman. As the world loses in each able bodied man the productive ability of that man, so it loses the financial value of the producing forces of that human being. We are a small part of this great commonwealth and each loss to the whole is a small part of that loss to every individual. This fact is clearly demonstrated in the case of life insurance. If the victim dies at an early age with a life insurance policy in his possession, the individual citizens pay their part. Insurance rates are not based on vital statistics as they should be, but as they actually exist. Moreover what family would not rather have ten barns burn down than lose the wage earner

of the family? In the face of these facts cannot then the value of a human life during the productive age be placed at \$5,000. Therefore it is not inconsistent to demand the same protection against such losses as against the loss of personal property.

Nature provided sanitary measures for the primitive man and the lower animal in their undomesticated state, in that the refuse from the animal kingdom is food for the vegetable kingdom, where the ratio of the former to the latter is not too great. Clearly then where human beings have congregated to such an extent that the vegetable kingdom can no longer consume, as it were, the refuse matter, man himself must provide means for its removal from the immediate vicinity in which he lives and not leave it as a medium to further the growth of zymotic disease germs.

The first and most important sanitary measure hence is, to provide an adequate means for carrying away the organic wastes from the city, that is, construct a system of sewage. The removing of these organic wastes may be executed in a meagre way by a pail system, dry closet system and perhaps a perfectly constructed cess pool system, yet the most economical, most effective and most generally adopted method is with the agency of a water carriage sewer system. My remarks here will hence be confined to water carriage sewers.

Sewers in general are divided into two classes, viz.: combined and separate sewers. Combined sewers are those in which one conduit carries all the sanitary wastes and storm water. Separate sewers are those in which the sanitary wastes are carried away in a separate conduit from the storm water. It can be readily seen that the sizes of the conduits for separate sanitary sewers are small as compared to the conduit of combined sewers necessary to provide for the average maximum rainfall which is many times in excess of the average precipitation. The fact that in cities of the class of which I speak, the storm water may be carried away in the open channels provided by nature to good advantage (for the property

is not so valuable but that these can be spared until the city grows to such an extent that it will not create a burden to build storm sewers) and also from the fact that the expense of separate sanitary sewers falls within the range of every little hamlet makes the separate sanitary sewer very applicable, hence desirable for smaller cities. The fact that large cities are so built up that open channels could not exist, and also from the fact that combined sewers, though a burden on rural cities, will not create a burden on metropolitan cities, makes the combined sewer the desirable sewer for large cities. Herein lies the principal difference between desirable sanitary measures for smaller and larger cities. Another advantage in cost of separate sewers over combined sewers is that great care and expense must be put in large drains in order to admit of their use for conveying organic wastes, while if a small sanitary sewer is used to convey these wastes a cheaply constructed drain will effectually carry away the storm water. We cannot overlook the fact that many of the inhabitants of smaller cities are in meagre financial circumstances and we must avoid as far as possible the burdening of such people with extensive improvements. The sanitary sewer, however, which costs approximately 50 cents a linear foot, amounting to about \$5.00 per capita, cannot be called a burden, for any man that can own property can meet this small expense, especially as the community will be compensated many times over for the expenditure. If he cannot meet the expense his only salvation is to cease to be a property holder, for he is a detriment to his community.

In connection with a sewerage system, proper plumbing regulations should be adopted to insure against ill effects from this source. The use of privy vaults should be discontinued as the great amount of illness produced from this source is seldom appreciated. What becomes of the wastes when we deposit it in a privy vault? The liquid matter percolates into the soil polluting it with the germ or ptomain of the germs. The heavy matter is decom-

posed by the organism, *frequently of a pathogenic specie, giving off noxious gases that are not only disagreeable, but are polluted with the very essence of the diseases previously stated.* The use of well water in close proximity with a privy vault is beyond the necessity of discussion. Each year our attention is called to instances where whole families fall victims to a well polluted by a near by vault. Again the public refers to it as "Will of God," but I believe you will agree with me in calling it criminal negligence on the part of the responsible party.

Unfortunately the kitchen wastes, commonly called garbage, is of such a heavy nature that it may not be admitted into sewers. For this reason it becomes necessary during the hot months to remove this garbage in properly constructed wagons to a place where its decomposition will produce no ill effects. For the convenience of the scavenger this garbage should be deposited in a tight covered box in the rear of the lot. The scavenger should empty these receptacles frequently enough to avoid putrefication in them. The scavenger should also remove all carcasses, manure, etc., from the streets and alleys as soon after the deposition of the same as possible. The cost of such scavenger work should not be more than 40 or 50 cents per inhabitant per season.

Having accomplished the removal of all organic wastes the next very important sanitary measure is to supply the city with an uncontaminated water fit for drinking purposes. We may contend that having removed the sources of contamination, the well water should be free from further pollution. As is generally the case at the time of the introduction of sewerage, unless cities built up very rapidly, the surface soil has been receiving for a great many years the refuse of human beings and is therefore polluted to such an extent that it will require a long period before surface wells (which receives the water passing through this polluted soil) becomes fit for drinking purposes. Moreover, statistics show that cities having a public

water supply have a lower death rate than those using surface wells. But even if we do not use the well water of cities it is potent that we remove the organic wastes to avoid soil and atmosphere pollution.

Deep well water where it can be had in sufficient abundance without objectionable medicinal properties, makes a very desirable public supply. However, it is seldom that an adequate supply can be obtained for a large consumption. Where river or creek waters are supplied for public use (where there is any possibility of sewage contamination from cities further up the stream) should be filtered before being pumped to the city.

Two methods of filtration may be used, viz., mechanical or rapid filtration, in which a chemical, usually the sulphate of aluminum is used to form a precipitate of aluminum hydroxide before passing through a coarse sand filter. Natural or slow filtration, in which the water passes slowly through a prepared filter bed without the use of a chemical. Either of these methods if properly used will give excellent results, removing from 96 to 100 per cent of the bacteria in the water. The general use of pure water for cooking, bathing and washing purposes should be encouraged by municipalities.

Where both sides of the streets are built up with high buildings which do not permit of the sun shining on the streets but a few hours each day, it is very desirable that they be paved with a smooth hard surface that will admit of frequent cleaning with little expense. Dirt streets that must be continually sprinkled to avoid making them unbearable from dust accumulations that cannot have the horse dripping removed on account of the nature of the surface, are not only disagreeable as a thoroughfare but soon become a mass of micro-organisms giving off a stench that fills the nostrils of every individual passing over them. Such a state of affairs is unsanitary, not conducive to good health.

These four public improvements, viz., sewerage, including cellar drainage, garbage disposal, pure water supplied by a

public water works system, and paved streets on the business thoroughfares, should be found in every city in which the population is eight or more per acre.

You may ask for some evidence of good results from these measures? Unfortunately the statistics for smaller cities are rather meagre. But let us look at the fact that Berlin with every desirable sanitary measure has a death rate from typhoid fever one-tenth of that of Chicago. The principal cause of Chicago's heavy death rate from zymotic diseases is its polluted water supply and poor sewerage and drainage. We may look with satisfaction to the fact that millions of dollars are being spent to rid Chicago of its organic wastes and supply it with an unpolluted water. Statistics of Eastern cities show a reduction in the death rate of from 40 to 50, and even higher per cent upon the introduction of proper sanitation.

Let us lay aside for a moment, if you please, the sanitary aspect of the measures herein enumerated. Let us look at it from an æsthetic standpoint alone. Are interior lavatories, made possible by sewerage, water taps, clean streets and pavements not worth having for their convenience alone? Surely no man once having experienced the benefits and conveniences of these things would turn back to back yard privy vaults, a windlass well, streets alive with the venom of decaying organic matter and mud road, for five times the cost of these improvements.

With the introduction of sewerage systems there is one point we may not overlook. That is, the discharging the organic wastes of a city on the hand of a sister city down the stream. The state should never permit such actions. Sewage, unless it is discharged into a stream of sufficient size to make it harmless by being sufficiently diluted, should be purified. There are several methods of accomplishing this, viz., by broad irrigation, chemical precipitation, intermittent downward filtration, and by a septic tank disposal. As the last mentioned is by far the most economical and gives excellent results it is

best adapted to smaller cities. Describing briefly the septic tank, it is an air tight and light tight structure, made so to create the conditions for the growth of the aerobic forms of bacteria. The sewage enters this tank, is acted on by the aerobic forms of bacteria which decompose the organic matter and by the processes of nitrification produce the nitrates and nitrites forming mineral compound which are dissolved by the liquid matter and carried away. The result of this action is that after the sewage passes under several baffle boards and finally discharges over a weir in a thin sheet it is a clear liquid showing little resemblance to the sewage entering the tank. All that remains in the tank is a harmless sludge devoid of almost all organic matter. This method of sewage disposal, which is receiving much attention in the engineering world, was introduced to Illinois by Professor Talbot of the University of Illinois. The State owes much to Prof. Talbot, in solving this great problem of sewage disposal so practically and efficiently.

What should be the aspect of the State towards the adoption of proper sanitary measures by cities? Does it not seem as though such matters that are of such vital importance to the general public should be regulated by sound state legislation? Man in his eagerness for the Almighty Dollar frequently forgets his higher sentiment and his duty toward his fellow countrymen. It might be well to remind him of these by some legislation.

MEDICAL ORGANIZATION.

BY JAMES TWEDDALE, M. D., WASHBURN, ILL.

(President's Address, North Central Illinois Medical Association, Mendota, Dec. 5-6, 1899.)

Organization is the fad of the day. Every thinkable division and sub-division of intellectual or mechanical labor has its society. If, by chance, anything has escaped, future investigation will reveal it, and its proper classification, with its attendant society is only a matter of time. Medical and surgical specialists for their con-

venience have mapped out the human body, externally and internally, into such natural or unnatural divisions, as suits their convenience; the only part of the human body I can think of not yet adopted as a specialty being the "Umbilicus," but we can calmly await the day when upon this modest, retiring anatomical foundation will be built the Esculapian Navel society, to fill a long-felt want.

It is far from the reader's intention to cast ridicule upon the specialists. The rapid advancement of medical science and art would have been impossible without these ardent workers in special fields. No human mind can grasp medical science as a whole. The index alone of its literature fills many volumes, therefore divisions and sub-divisions are absolutely necessary. But all this segregation, while beneficial in acquiring knowledge and promoting investigation, is in a measure detrimental to the unification of the whole profession, a unification absolutely necessary to accomplish the great things demanded by the advancing spirit of the times. And here it might be well to say, that, if medical societies exist for the sole purpose of benefiting their members, without regard to the welfare of their fellow citizens, they had better never been born. The medical profession apparently grows stronger by undermining the foundation on which it seems to rest; its noble aim being the prevention as well as the cure of disease.

The present organization of the medical profession, as far as its relation to the treatment of disease is concerned, or rather its scientific aspect, seems susceptible of very little improvement. However, there are many other subjects, some of a political nature, which demand more attention than an occasional resolution in the proceedings of the district societies. State and national departments of health, to form integral parts of the government and to be paid as other departments, and to which all matters relating to the health of the people and the qualifications of medical men might safely be left, are some of these. The government of public hospitals, na-

tional and state quarantine, vaccination, vivisection, the commitment and care of the insane, and all sanitary matters relating to schools and prisons, and the pollution of our rivers and streams are questions for the decision of such departments. A united profession, upon a basis of common interests, would have a powerful influence upon legislation. If a union could be formed upon those things in which we agree, the things in which we differ would assume much smaller proportions. It seems to your reader that as the officials of the State Board who are appointed by the Governor are of different schools, and appear to work harmoniously for the good of the profession and the benefit of the commonwealth, that it would be possible to organize the whole medical profession into an immense association for the very political purpose for which the State Society exists. Not to abolish State Boards by any means, but to form, strengthen, and sustain such boards in every State in the union, and also at the central government.

The opposition to the present State law is furious against those clauses which gives the board power to examine all persons who purpose practicing in this State, and to revoke licenses for un-professional conduct. The motive behind this onslaught would appear a great and reasonable fear that the students of some of the colleges, which these worthy gentlemen represent, might, in undue proportion fail, to the great detriment of their Alma-Mater. Then there are the bottle-fed doctors, who have no Alma-Mater, and the quacks, whose Alma-Mater have disowned them. These latter persons are afraid of the revoking clause.

If any one wants to teach a common school, a diploma from Yale or Harvard would avail nothing; he must pass an examination. In dentistry the same. The legislature of this State passed a law defining the qualifications of lawyers. The Supreme Court decided that the legislative department could not interfere with the judicial, and every law student must pass an examination, whether a graduate

or not. If a man wishes to hold a position under the government he must pass the civil service examination.

It has been observed that the opponents of reformatory measures are far more apt to be vigilant and active than are the reformers themselves. Dr. A. C. Corr, of Carlinville, in the correspondence department of the *Illinois Medical Journal*, of November, 1899, writes, "The State Board of Health as an adjunct in the machinery of the State Medical Society deserves a great deal of consideration, and most assuredly in its present condition and mode of management needs to be revolutionized." It may seem presumptuous to criticise an article of Dr. Corr, but I dislike to think of the State board as an adjunct of a medical society. Webster defines "adjunct" as something joined to or added to another thing, but not necessarily a part of it. We are endeavoring to make the State Board an integral part of our State government, of which it now is only an adjunct. It would be better to consider the societies of all schools as adjuncts of the State Board.

Again in the same article Dr. Corr says: "Suppose with this unphilosophical machine you allow all its members, with the secretary, to be non-affiliating with the State Society, I ask how can you expect to protect the interests of the health and life of the citizens you have, so sacredly, in your keeping?" Just so; but suppose you had an united society instead of three, a society which would ignore all discordant theories of principles and practice, and devote its whole effort to the political side of medicine.

Dr. Carl Black, of Jacksonville, in the same journal says: "There is no way in which our medical organization can do a greater amount of good than entering practical politics to the degree of controlling all medical appointments." Politicians respect nothing but political force. The politicians consider the medical profession as an army divided into warring camps, not liable to fight a common enemy while squabbling among themselves. While writ-

ing this article, I see that men eminent in the profession, are furnishing ammunition to the daily press to fire at the State Board, and the *quacks* have joined in with a hue and cry of being bled in the pocket to secure immunity from prosecution. Poor State Board, the pet organization of the medical profession, held up as a model by other State societies and the very abomination of desolation to the quacks! Now it is being ground between the upper millstone, the quack and the nether millstone, its friends. It would be better had those critical thoughts remained in a state of innocuous desuetude among the cerebral convolutions of the very active brains of those eminent Chicago professors, or had appeared in thoughtful articles in the medical press. The State Board should be the rallying point of the whole profession; around it centers all the political power the profession has or may expect to have. It should be reformed and reformed until it meets the expectations of the people and the profession. When the medical men and women of this great country form themselves into a solid organization with delegated authority we can look hopefully forward to that happy time when medical legislation will be something more than a farce. The 120,000 doctors in the United States could probably influence from one-half to one million votes; that would be something the politicians would respect. How to accomplish this union is a question that must be left to abler minds than mine. If we are to achieve anything worthy of the profession it must be done with one great army commanded and fitted up in a modern way. The bushwhacking style has gone out. This is the day of rapid-firing guns and smokeless powder, and it will not do to envelope ourselves in the smoke of old-fashioned weapons, and imagine we have won a victory, only to find after the field is clear that the enemy still holds the fort. If we mobilize our forces, modernize our weapons, place a general in command, and take the field, victory is ours!

There are two ways of organization

which present themselves to my mind. One, for every society of legal practitioners to send delegates to a convention or congress, to be called, if you please, "The Medical Council." Or, by commencing at the bottom, organize a council in every county and form state councils by delegates. It is not my aim to attempt anything more than suggestions. Much labor and thought must be expended before a task of this magnitude could be accomplished. If medical science could discover an antidote to political corruption, the moral atmosphere would at once become clear and we could see our way without difficulty. Our legislative machinery is like a "slot machine:" you must drop in the proper coin before the law will grind out; or like a combination lock: you purchase a chart of directions and turn the handle to the right and left to the prescribed figures on the dial (generally pretty high figures), and when you expect the bolt to slide you find the combination has been changed and it is necessary to purchase another set of directions and begin again.

O! that the "sun" of political righteousness might arise and shed its rays upon the discordant elements of the medical profession, expose the dark byways of quackery, dispel the mists of superstition that cloud the minds of the laity, and bring on that perfect day when science and reason shall reign supreme!

BOOK NOTES.

Transactions of the Indiana State Medical Society 1899
Fiftieth Annual Session held in Indianapolis, June
1st and 2d. Publication Committee, A. W.
Brayton, Indianapolis, Chairman.

For several reasons it will appear that a review of the annual proceedings of our nearest neighboring state will be of interest at this time. The volume before us is well printed and bound, containing with its double lists of members 552 pages, slightly longer than used in issuing the Transactions of Illinois, in reporting the Galesburg meeting. However, when one of the lists of members is counted out it will be seen that the Illinois volume is

slightly larger. The volume is fittingly embellished with half tones of the four surviving members who attended the first meeting in 1849. These venerable patres æsculapii took part in the exercises of the jubilee meeting unhampered by the five minute rule and gave noteworthy reminiscences of their early days and struggles. Thirty-eight papers are printed. The paper on Cholelithiasis by Dr. E. C. Davidson, of Lafayette, appropriately mentions the historic cholecystotomy, of Bobbs, of Indianapolis, in 1867.

A. W. Brayton in discussing the parasites of malaria, makes the significant and important statement that there should be a bacteriological station supported by the public in every county seat. The fiftieth annual session was attended by about 450 physicians, and was certainly an enjoyable occasion. It is to be hoped that Illinois will have a golden jubilee equally successful, and well attended.

Some other features of the Indiana Society interest us because of the attitude of its would be official organ, the Indiana Medical Journal, towards the Illinois Medical Journal, the official organ of our Society. Dr. Brayton, chairman of the Publication Committee, and editor of the Indiana Journal, in his August issue saw fit to insert his editorial probe into our infant enterprise. With vigorous pectoral percussions he declared that Indianians "would never consent to the publication of a monthly journal of the Society in place of the annual book of proceedings." In view of this statement, what was our surprise to find on page 436, that at this meeting Vice President Keiper, of the Indiana Society, brought up the matter of changing from the bound volume to the monthly journal form, stating his belief that "the growth of the Society might be very materially increased thereby." Is it possible that some vested interests were endangered by Dr. Keiper's motion, and that Editor Brayton was endeavoring in his August issue to belabor Indiana over the shoulders of Illinois? Did Dr. Keiper's move have anything to do with his transfer from

the second office in the gift of the Society to a place on the obscure committee of Ethics? Is the Indiana Medical Journal "by tacit consent and nearly universal subscription" so nearly the organ of the Society that it finds it necessary to smother the idea of further growth of this great Society, even if it can be done by the journal method? This is for Indianians of course to decide, but in the meantime Brother Brayton will take notice that Illinois has entered the lists and from present indications the hoosiers will have to look to their laurels. Already since the Illinois Journal was established there has been a large percentage of increase and at the present rate it will not be long until we will have more than the 1,535 members of which Indiana boasts.

One item more in Indiana's organization. We find the county organization idea carried to the extreme in some cases as witness La Porte County, with two good sized cities, has a society of seven members, four of them officers, and meets quarterly or on call. Orleans County Society has six members and six officers. Perry County Society has four members, one from Spencer County, and four officers. Washington County Society has two officers and two members. Franklin County has one member who has elected himself secretary. Why not president? The post office of this officer is not given. Ripley County has one member who has not decorated himself with an official title.

From these examples it would appear that the interests of the practitioners and medical science would be better conserved in many parts of the State by a few active district societies, such as exist on this side of the banks of the Wabash. G. N. K.

WARLIKE PHYSICIANS.—The Chicago Rough Riders, an independent cavalry regiment, have adopted a constitution framed after the army code and elected civic and military officers. Dr. Gustavus Blech is Colonel; Dr. J. B. Weintraub, Major and Surgeon. Drills will be held weekly at 1450 Michigan avenue.

The Illinois Medical Journal

PUBLISHED MONTHLY.

Official Organ of the Illinois State Medical Society.

Committee on Publication:

E. W. WEIS, M. D., Chairman, Ottawa.

H. N. MOYER, M. D., Chicago.

G. N. KREIDER, M. D., Springfield.

All communications should be addressed to E. W. WEIS, Secretary, Ottawa, Ill.

All remittances for subscriptions should be sent to Dr. G. N. Kreider, 522 Capitol Ave., Springfield, Ill.

The Society does not assume responsibility for any statements or opinions published in this journal.

Entered at the Postoffice at Springfield, Ill., as second-class matter.

Springfield, Ill., January, 1899.

ATTENTION!

Information is desired from the officers of all local societies in the State to furnish the editor with the names and residences of the officers, place and date of meetings of their respective society. It is earnestly requested that such information be sent in at the earliest possible moment.

CHICAGO DRAINAGE CANAL.

At the last meeting of the Physician's Club in Chicago, the drainage canal was the topic under discussion. Mr. Randolph gave a large number of stereopticon views illustrating the progress of the work and some of the difficulties encountered in its construction. His views showed that the work is one of great magnitude and one from which the score of difficulties accomplished must prove a credit to the trustees of the drainage district. Mr. Cooley, who is largely responsible for the drainage canal, having been one of its earliest advocates and the first engineer of the board that planned its construction, was present. He took an enthusiastic view of the importance of it as a water-way connecting the great lakes with the Gulf of Mexico.

Dr. Reynolds, the Health Commissioner

of Chicago, discussed the value of the canal from a sanitary standpoint and showed how it would make the water supply of Chicago purer by keeping the sewage out of the lake. He referred to the position taken by Dr. Rauch regarding river pollution, stating that this immense amount of sewage would purify itself long before it reached Peoria. Incidentally, he spoke of the immense amount of sewage which now flows into the various rivers from towns along their banks. A careful study of the conditions which now obtain cannot fail to convince one that after the water is turned into the canal there will be a marked improvement; not only will the water of the canal and these various streams be diluted by a large mass of fresh water, but the amount of sewage in the streams will not be materially increased. The pumps at Bridgeport now lift many tons of solid matter into the old canal every day, which, in the most concentrated form is sent on its way down these streams. The opening of the drainage canal must improve present conditions, but this does not show that the drainage canal is a success from a sanitary standpoint. The emptying of sewage of cities and large towns into the streams, is, at the best, a filthy and unsatisfactory method of sewage disposal, and one which is largely condemned by leading sanitarians. The people of Europe are earnestly striving to prevent pollution of streams and this year, Paris celebrated the opening of its last intercepting sewer by which all of its sewage is diverted from the Seine.

There can be no question that Chicago is sadly in need of the relief which will be obtained by opening the drainage canal, as the water supply is polluted, a large number of deaths occurring annually from this cause. Those who oppose the opening of

the canal advocate a most short-sighted policy in the fact that it can have no other effect than to improve present conditions. After the canal is opened and Chicago has had time to recuperate from the financial strain incident to its construction, then it should take up at its leisure the question of proper sewage disposal. This will consist of the adoption of some method of precipitation, pumping upon land or bacterial treatment, all of which methods are in successful use in different parts of the world. This should only be required when the State enters upon the purification of its waters. Chicago should not be asked to change its system until other towns and cities are compelled to remove their sewage from waterways. It is true that the water has not yet been turned into the canal, but the drainage channel is *fait accompli* and it should be so treated. M.

MIGRATORY MEDICOS.

For several months the Journal has been publishing lists of the changes of address of physicians practicing in Illinois, or going from or coming to the State. These tables were furnished by the Secretary of the State Board of Health, but supplemented by information received by the editors in their unceasing efforts to unite the members of the profession into a working body. These lists have been very interesting, largely read and their number has been a source of astonishment to us and all our readers. Undoubtedly many changes occur which do not come to our notice as there is no means under present laws of getting accurate information. The only country which keeps an accurate record of the movements of its medical men is Germany. This systematic nation with its fifty million inhabitants reports each month any change of the members

of its medical men to a central body, which reports in the official organ of the State. By comparing the German official publication with our semi-official list for Illinois it appears that more changes occur monthly in our State with 10,000 practitioners than occur in the entire German empire, with about 24,000 practitioners.

Surely this migratory habit of our colleagues deserves some consideration. We can only hope that by publishing and calling attention to this excessive mobility a better condition of affairs will result. It appears that in many cases no sooner do physicians locate than they arrange to go somewhere else and thus consume their substance and destroy their peace of mind by traveling over the country. They never get the tree of science planted deep enough to gain a firm hold and periodically they expose its tender roots to the blasts of winter or the heat of summer and soon it has lost all ability to grow.

It has been truly said that a practitioner is justified in making only two locations. First if necessary because of poverty or lack of experience he should locate in a small place where he will usually find ample opportunity for hard work, and his merits will soon become known. Under these circumstances he will also have opportunity to take his measure and if larger than the community, make preparation to move to a place of greater usefulness. Happy is the man who takes a proper estimate of himself and makes the proper move. Unhappy is the man who overestimates his ability and ranks himself in the hundred thousand class when he really belongs in the one or five thousand class. That man's move usually means a series of moves each more disastrous than the other. The ancient legend of the rolling stone and the moss should ever be borne in mind by the practitioner of medicine. K.

County and District Societies.

VERMILION COUNTY MEDICAL ASSOCIATION.

President, W. A. Cochran.
Vice President, T. E. Walton.
Secretary and Treasurer, E. E. Clark.

WARREN COUNTY MEDICAL SOCIETY.

President, E. J. Blair, Monmouth.
Secretary, A. G. Patton, Monmouth.
Treasurer, A. R. Nichol, Monmouth.
Next meeting May 4, 1900.

KANKAKEE COUNTY MEDICAL SOCIETY.

President, Chas. True, Kankakee.
Vice-President, Preston Stebbing, N. Kankakee.
Secretary and Treasurer, George H. Lee, Kankakee.
Meetings held monthly.

At the regular meeting of the McLean County Medical Society the following papers were presented: "Report of Cases," Dr. J. L. Yolton, D. H. Nusbaum; "Inflammation," Dr. Mullen; "Arthritis Deformed," Dr. E. S. Reedy.

The Clay County Medical Society met in Flora Nov. 7th, with twenty-three physicians in attendance. A fee bill was agreed upon and adopted. Papers were read by Drs. Thompson, Parks and Fairchild, which was followed by discussion. An adjourned meeting will be held here in January.

The Decatur Medical Society was organized December 21 with thirty-six members and the following officers:

President, W. J. Chenoweth.
Vice-President, J. N. Randall.
Secretary, W. C. Wood.

Meetings on the fourth Thursday of each month.

The members of the Clinton County Medical Society assembled in Breese Nov.

7th, and held an interesting meeting. Dr. W. P. Gordon, of Carlyle, presided and Dr. M. Broening, of the same city, officiated as secretary. An excellent paper on the treatment of consumption was presented by Dr. W. T. Gaffner, of Trenton. The subject was discussed at length by those present. Dr. Broening, of Carlyle, talked interestingly on "Suppuration." An animated discussion in relation to the treatment of typhoid fever was commenced by Dr. Morony, of Breese, and all of the medicos participated. One new member, Dr. G. Y. Hord, of Keyesport, was admitted. After the meeting a banquet was served at the Hotel Commercial.

The North Central Medical Association convened at ten o'clock A. M. December 5th, in the city of Mendota, for a two days' session. This was perhaps one of the best attended meetings in the history of this Society. As this association takes in so many counties, it is to the credit of those members living at great distances that they attended. The scientific part of the program could not be excelled. The discussions were earnest and showed a wide range of information and the social features being in the hands of that veteran of hospitality, Dr. E. P. Cook, Sr., no word too much in praise could be said. The city of Mendota with its usual openhanded hospitality welcomed the visitors, making each and every one feel at home.

President Dr. Jas. Tweddale in the chair.

The first order of business was the necrology report. Dr. James H. Braffet, who was born in Florida, Orange County, N. Y., October 16th, 1834, died in Paw Paw, July 16th, 1899. He came to Illinois and located in E. Paw Paw in 1855. He was elected a member of this society in 1878, and of the Illinois State Medical Society in 1879.

Dr. C. W. Mackintosh was born at Bethel, Vermont, graduated in 1890, and practiced at Verona, Galesburg to 1896. He died in Northfield, Vermont, in 1899. Resolutions of respect were carried by a rising vote.

The Treasurer's report showed a cash balance on hand of \$235.57.

Dr. C. C. Hunt, Dixon, Ill., presented the address in practical medicine, "The General Practitioner as a Gynecologist." The doctor argued that the day of the specialist is fading away and that every practitioner ought to qualify himself to be able to diagnose and perform such operations as are now turned into the hands of the specialist. With our present knowledge of asepsis and pathogenic bacteria the fear of infection has, in a measure, been lost. Discussed by Dr. J. A. Freeman, Millington, who condemned rapid operations for record only. Dr. O. B. Will, Peoria, spoke on the question of Prophylaxis, by giving more attention to cases after labor. General practitioners should examine cases one month after labor to see that all organs are normal. Dr. J. P. Lytle, Princeton, urged that no one should venture beyond his ability.

"Clinical Notes with Demonstrations of Pathological Specimens," by Dr. E. P. Cook, Jr., Chicago, exhibited a horse shoe kidney taken from a man 73 years of age, who died of lobar pneumonia. Weight 350 grams, normal excepting one retention cyst. Also exhibited an enormously enlarged prostate with hydro-ureter and nephrosis. This case also had mitral stenosis, ulcer-vegetative endocarditis. Aet. 60. Cystic degeneration, two cases, conglomeration of cysts, size split pea to walnut. The interesting feature of this case was that the patient was only sick one week prior to death. There was some dyspnoea, no edema, epileptiform convulsions and sudden death in one hour after. Uremia, specific gravity 1010 and trace of albumen. Microscopical examination before death negative, after death hyaline casts. Aet. 55. Liver also showed extensive cystic degeneration. Pulmonary embolism. Patient complained of pain in precordia followed by dyspnoea and lividity 7th day after labor of the thirteenth child; all organs normal. Discussed by E. W. Weis, Ottawa; J. A. Freeman, Millington and Watts, M. D., of Triumph.

"Tuberculosis," by C. A. Palmer, M. D., Princeton. "Pulmonary Tuberculosis," by T. H. Stetler, M. D., Paw Paw. These two papers were jointly discussed by M. E. Buellesfield, M. D., Troy Grove, and J. P. Lytle, M. D., Princeton. Dr. J. A. Freeman stated that he had excellent results from Kleb's Tuberculocidin. J. J. Hahnemann, M. D., Maldan, Ill., and J. W. Pettit, M. D., of Ottawa, urged affiliation with the Chicago Society for the Prevention of Tuberculosis, and also C. D. Thomas, M. D., of Peoria. Discussion closed by essayists.

The address in surgery, subject, "The Significance of Eye Symptoms in Brain Surgery," by W. H. Wilder, M. D., of Chicago. Discussed by Dr. J. W. Pettit, Ottawa; Dr. Roy Stretator, Dr. C. D. Thompson, Peoria; and Dr. Hugh T. Patrick, Chicago.

Dr. S. O. Hendrick, Henry, Ill., read a very entertaining paper on "Medical Etiquette."

In the evening of the first day an elegant banquet was tendered the members by the local profession of the city. Dr. E. P. Cook, Sr., being the toastmaster, it is needless to state that he kept the ball rolling fast and furiously.

At eight o'clock the President, after various addresses of welcome and responses, delivered his address on the subject of "Medical Organization," which appears in full in these columns, after which Dr. Hugh T. Patrick, Chicago, read the general address on the subject "How Not to be Nervous." This paper was a masterpiece and was easily comprehended by the large number of the laity present.

The address in state medicine, subject, "Heredity," by John Ross, M. D., Pontiac, Ill., the abstract of which will appear later.

"Wounds and Injuries of the Abdomen," by Dr. A. B. Middleton, of Pontiac. No discussion. "Four Cases of Appendicitis with some of the Lessons that they Teach," by Dr. J. F. Percy, of Galesburg. This paper was very instructive and was discussed by Drs. E. P. Cook, P. M. Burke, T. H. Stetler and O. B. Will. The follow-

ing were elected to membership: Dr. M. E. Buellesfeld, Troy Grove; Dr. O. J. Flint, Princeton; Dr. J. J. Hanenore, Malden; Dr. J. A. Kleinsmid, Troy Grove; Dr. F. H. Lord, Plano; Dr. H. T. Patrick, Chicago; Dr. V. A. Peterson, Somonauk; Dr. W. A. Pike, Ottawa; Dr. Wm. Schoennieshoefer, Lstant; Dr. E. L. Watts, Triumph; Dr. G. J. Wormley, Sandwich and Dr. H. A. Zinser, Roanoke.

Moved and carried that \$50 be paid to the State Medical Society Committee on Legislation. Moved and carried that Dr. J. O. Stout, of Ottawa, be made a permanent member of the Association. Committee on Nomination reported officers for the ensuing year as follows: President Dr. P. M. Burke, LaSalle; Vice President Dr. F. C. Robinson, Wyand; Secretary and Treasurer, Dr. G. A. Dicus, Streator; Assistant Secretary, Dr. Roy Sexton, Streator.

Before adjourning, the Society by a rising vote passed a resolution of thanks and appreciation for the outgoing secretary, Dr. Wm. O. Ensign. It is to be regretted most sincerely that Dr. Ensign's health does not allow him to continue in that office, which he has occupied consecutively fourteen years. The growth of this medical society attests the heroic work done by Dr. Ensign and every member present felt a pang of regret when the doctor insisted that a younger and more active man should be elected.

The following members were in attendance: T. W. Gillespie, Lstant; E. T. Goble, Earlville; R. E. Gordon, El Paso; S. O. Hendrick, Henry; J. R. Hoffman, Chicago; W. E. Howard, Ohio; D. W. Jump, Plainfield; J. P. Lytle, Princeton; W. C. Mason, Walnut; A. B. Middleton, Pontiac; C. E. Orelups, Streator; C. A. Palmer, Princeton; E. E. Perisho, Ancona; J. F. Percy, Galesburg; J. W. Pettit, Ottawa; N. F. Felker, Amboy; J. A. Freeman, Millington; F. A. Turner, Sandwich; Jas. Tweddale, Washburn; E. W. Watts, Ottawa; F. C. Robinson, Wyand; E. E. Rohrabough, Chicago; John Ross, Pontiac; Peter Schmitz, Leonore; Roy Sexton,

Streator; T. H. Stetler, Paw Paw; C. D. Thomas, Peoria; E. P. Cook, Mendota; C. E. Cook, Mendota; J. C. Corbus, Mendota; G. A. Dicus, Streator; J. F. Dicus, Streator; J. W. Edwards, Mendota; W. O. Ensign, Rutland; M. H. Everett, Lincoln, Neb.; C. E. Fogg, Wenona; W. H. Wilder, Chicago; O. B. Will, Peoria.

Visiting members of the profession: C. M. Coen, Mendota; E. P. Cook, Jr., Chicago; J. L. Remsburg, LaMoille.

The Sangamon County Medical Society met for permanent organization in the County Court Room, Odd Fellow Building, December 11, 1899. Geo. N. Kreider acted as Temporary President and Edw. P. Bartlett as Temporary Secretary. Forty-four members and visitors were present. The Committee on Constitution and By-Laws presented a report which was adopted as read. Acting under the new constitution the Society elected:

President, Geo. N. Kreider, Springfield.
Vice President, W. T. Moffett, Williams ville.

Secretary, E. P. Bartlett, Springfield.
Treasurer, Percy Taylor, Springfield.

Board of Directors, L. C. Taylor, E. E. Hagler, B. B. Griffith, all of Springfield.

The literary program followed, Typhoid fever being the topic. On the etiology and pathology W. O. Langdon said: No disease in recent years had received more attention and study, being a disease most prevalent and of most grave character, protracted nature and far reaching effects on the human system, causing diligent study by scientists to locate the lesions common to it, ascertain the cause and to produce a remedy. The cause had been found, but perfect antidote yet to come. An infectious disease with certain lesions of the intestinal canal, with Eberth's bacillus present, rose colored eruption not constant. Etiology under two heads: predisposing and exciting. Childhood and early adult life the predisposing cause. Statistics given showing this predisposition. No age exempt; sex not a material factor. New arrivals in infected districts prone to

disease. Station in life, nor occupation, not considered a predisposing cause. Infirm health, or intemperate habits considered as such. Autumn months and late summer season periods of most frequent prevalence; especially wet cold seasons following dry, hot summer. Exciting cause specific germ (shown under microscope), described as short, thick bacillus, lively movements, rounded ends, in one or both of which is to be seen round glistening body; bacilli usually in clusters in said disease. Baccilli grow outside of body on special culture medium at bodily and even lower temperature, and multiply rapidly. Tenacity of life wonderful; freezing and thawing several times seeming to add to their vigor. In ground live for years, and retain their virulence. Mode of infection, must be swallowed. Failed to find authentic case produced by other means. Water and milk most frequent vehicles of transmission. Touched upon natural resistance of individuals against the germs.

Pathology considered under two heads: 1st, Immediate or Specific, and, 2d, Remote or Toxic. 1st, Catarrhal condition of intestines, causing diarrhoea with thin pea soup discharges; specific lesions of lymphatic glands of lower bowel and ilium and hyperplasia of glands of Peyer. Perforation occurs in 11 per cent of cases, as shown by hospital reports. Hemorrhage frequent, due to separation of sloughs. Remote or toxic effects numerous, due to direct action of bacilli or to the toxine generated by them; enlargement of spleen; necrosis of same, and of liver, with degenerative changes in both, also of kidneys; catarrh of bladder; ulceration of larynx and lobar pneumonia. Nervous system suffers less than other parts of body. Delirium due to poisoned and impoverished condition of blood and lack of nourishment of brain.

S. E. Munson considered Widal's test. The specific reaction upon which this test depends in the characteristic phenomenon observed when a drop of blood serum or a drop of water containing a solution of dried blood from a typhoid patient is added

to a bouillon culture containing a moderate number of typhoid bacilli. If a drop of such a mixture be placed between a slide and cover glass and examined the bacilli will be observed to lose their power of motion, and begin to gather together in small groups of two or more, gradually closing up the spaces as motion ceases, until clumping is perfected, or only a small portion remains freely motile. The reliability of this test depends upon the technique in the preparation of the blood serum, and the culture of typhoid bacilli to be used. That the culture should be young is absolutely necessary. It is well to examine a drop of the culture before the serum is added, to see that no clumping of the bacilli is present. A time limit has been adopted of one-half hour, in which the serum must positively produce the reaction. The balance of testimony goes to prove that the reaction is one of infection and not of immunity. The reaction is often not present until after the first week. It is present in about 95 per cent of cases. No reaction in non-typhoid, in 98 per cent of cases.

J. W. Kelly spoke on the differentiation of typhoid from malaria. The one positive means of differentiating malaria from typhoid is by the microscopical examination of the blood. If the blood is examined during the chill or one or two hours previous we may see by careful focusing a pale mulberry like body made up of from twelve to twenty segments massed about a clump of black pigment granules, and lying within the red blood corpuscles. In the same slide may be seen other bodies loosely arranged and falling apart and also small pale spherical bodies floating alone in the liquor sanguinis and also corpuscles on which may be seen minute pale spots exhibiting amoeboid movements. A few hours after the chill these are not visible, but within the corpuscle are seen actively moving amoeboid bodies of considerable size changing shape and sending out pseudopodia into the substance of the corpuscle.

This is the tertian parasite, and the quar-

tan is similar but smaller. Its amoeboid movements are slower, pigment granules darker and coarser, and lie quietly around the edge of the parasite. It reaches its complete development in from sixty to seventy hours. The parasite of æstivo-autumnal fever is still smaller, often less than one-half the size of the R. B. C. at its full growth. Only the early stages of its development represented by small hyaline bodies, often with one or two pigment granules are found in the peripheral circulation, and this very rarely, but blood drawn from the spleen shows it much more readily in this and the later stages of development. After the parasite has been present for some time it becomes larger of crescent shape and flagellation may develop and sporulation may take place. Methods of staining malarial parasites were then given.

C. M. Bowcock—Woodbridge treatment: Said he had treated thirty-five cases in all by this treatment; average duration of disease in cases, seen late in the disease, thirty-two days. Cases treated at St. John's Hospital, of longer duration than those treated in private practice, as most of hospital cases are of severe type. Average of all cases treated was twenty-two days. After diagnosis is made treatment is begun with Tablet No. 1-R/ Podophyllin Resin-1/950 gr. Hyd. Chlor. Mit. Guaiacol Carbon. Menthol aa-grs. 1/16, Eucalyptol q s given every hour for forty-eight hours, if necessary, or until three or four evacuations of the bowels are produced each day. On third day Tablet No. 2, which is same as No. 1, with exception that it contains 3/16 grs. more guaiacol carbonate, and 1/16 gr. thymol. This tablet is given freely as possible throughout the disease, usually about every two hours, or as may be required to keep the bowels moving freely. In obstinate constipation saline cathartic required, in addition, as importance is attached to free evacuation of bowels throughout disease. Should ptyalism occur treatment stopped, and Pot. Chlorate used until controlled, then resume treatment. On fifth day

Tablet No. 3 is begun. This is composed of Guaiacol gr. 3, Thymol gr. 1, Menthol gr. ss. Eucalyptol min. 5. Free drinking of distilled or sterilized water insisted upon. Cold sponging or bathing made use of when temperature rises to 102°, and in cases of hemorrhage the ice coil is made use of. Cited certain cases treated by this method.

W. T. Moffett, upon "Other Plans of Treatment," said that most authorities agree that there is no specific treatment for typhoid, notwithstanding the claim for Woodbridge and other methods. They also agree that there is no way to abort or shorten its duration, but also agree that there is an abortive form of the disease and that there are mild cases. One important method of treatment is that of the hygienic. This is not necessarily very different from that of other continued illnesses, and consists in absolute cleanliness of patient and all of his surroundings. He should be kept clean externally and internally. Soap and water excellent for external cleanliness; proper diet and intestinal antiseptics useful to attain cleanliness of the intestinal canal and if the blood becomes dirty from the absorption of the toxins or ptomaines and disease germs, a little flushing of the circulatory system with normal saline solution, may prove very beneficial, supplying the proper pabulum for the cells engaged in deadly combat with the enemy. It is well to look to the cleanliness of the mouth, the port of entry, establish quarantine over it, keeping the teeth, tongue and nasal cavity as nearly aseptic as possible. The linen, floor, walls, air, food, nurse and physician should all be clean. Mosquitoes, malaria infested, and flies, carriers of all manner of filth and germs, should be excluded. Sunlight and plenty of air admitted. Next important plan of treatment is that of dietary. Importance of supporting the strength of patient generally recognized. Administration of beef tea and broths discarded by some physicians as too good a culture medium for Eberth's bacillus. Eggs, gruel, custard, without raisins, softened

crackers, thickened milk, albumen water, malted milk, and in fact any of the soft foods which leave little or no residue, recommended as food. Believed it wise to vary the diet within the bounds of safety. Expectant plan of treatment spoken of; consisting of little or no medicine, except as symptoms arise. Said the symptoms usually arise and as expected, on schedule time.

Spoke of cold water treatment, and said that it was undoubtedly useful when properly carried out and in suitable cases. Mentioned Liebermaster's iodine treatment, Wunderlich's calomel treatment, Bartholow's carboic acid and iodine treatment; use of quinine in large doses; opium in large doses; creasote; mineral acids, etc. Spoke of use of sulpho-carbolates, and recommended same in treatment of this disease. Recognized the importance of keeping the bowels well open throughout treatment. Special symptoms in special cases considered among them being intestinal perforation, and said that a lookout for this complication should be kept, and that not longer than twenty-four hours should be allowed to pass without resection of the bowel. Chances of recovery are in direct proportion to the promptness of surgical interference.

Joseph Brayshaw said that recognizing that Eberth's bacillus is the producing cause of typhoid fever the conclusion was forced upon us that the only means of prevention lay in the preventing of the bacillus from gaining an entrance to the intestinal canal, and to do this it was necessary to find the conveyances by which it enters. Observation had taught that these were contaminated water, milk and food. Pure water recognized as most important means of preventing disease. Spoke of duty of state and national governments in preventing pollution of water supply. Boiling or filtering water only safe means whereby private citizens can be sure of pure drinking water. Spoke of infected milk as means of disseminating the disease. Milk being a good culture medium for growth of typhoid germs, and readily takes up

same from infected water used in cleaning the cans, or in diluting the milk. Thought that a rigid inspection of milk should be had by city or state inspectors. Food becomes infected through the medium of flies; washing vegetables in infected water, etc., and prevention here consists in cooking the food, and if raw vegetables are eaten using pure water in their washing.

Carl Black, of Jacksonville, Ill., by request spoke upon the transportation of typhoid fever patients. Several months ago he was notified by a physician in a neighboring town that a typhoid fever patient would be sent to Jacksonville, to the hospital for treatment. The next morning he was notified that the R. R. Co. had refused to transport the case, the distance being about ten miles. The Secretary of the State Board of Health was called up by telephone and asked if there was any rule bearing upon the case, and information was given that never before had such a question been brought to the notice of the Board, but that the R. R. could refuse transportation for cause, and he thought that the State Board of Health would support them in such refusal. Reference was made to the rules of State Board regarding the transportation of those dead of typhoid fever in support of this decision. The conditions had been reported to Morgan County Society, and as the question seemed new and interesting, correspondence was opened with prominent physicians, secretaries of state boards of health, and others asking opinions upon the right of a R. R. Co. to refuse transportation of a typhoid fever patient; asking if local boards of health, or the boards of health in other countries, or R. R. companies, had any rule prohibiting such transportation, and if from the present state of knowledge of the transmission of typhoid fever the R. R. was justified in such denial of transportation. The replies establishes the fact that no regulations had been made by any of the state boards of health in regard to the transportation of persons sick with typhoid fever, but that it was recognized as a communicable disease and the

opinion generally expressed was that railroad companies were justifiable in refusing transportation to same, without extra and careful attention was given patients. One gentleman expressed the opinion that the disease had been spread greatly by the careless transportation of soldiers of the Spanish-American war, sick with same.

Lunch was then served and a pleasant hour spent in discussing the topic and viands.

Regular meetings on the 2d Monday of each month.

SMALLPOX IN ILLINOIS.

In view of the alarming prevalence of smallpox in certain parts of the State at the present time, and of the fact that the diagnosis of the disease has been disputed by physicians, the following exhaustive discussion of smallpox by a well recognized authority, will be read with interest:

An Open Letter to the State Board of Health of Illinois.

GENTLEMEN:—An epidemic disease is prevalent at this season in certain portions of this and of other States of the Union, which has awakened both among the laity and among men of the medical profession no little discussion and some controversy. The question of the nature of the malady has been debated alike by men of science, by editors of daily papers, and by the victims of the disorder who, it must be admitted, have a special interest in knowing the nature of the affection from which they have suffered. As I have had the opportunity of examining with care a number of the victims of this disease, both in this State and elsewhere, and last in an Illinois city, where I was given by the courtesy of the Mayor, an opportunity of observing a group of selected cases, I have ventured to address to your honorable body this open letter. It is my purpose, avoiding as far as may be the technical language of science, to set forth in simple terms the ascertained facts respecting the disease under consideration. I am entertaining the hope, however faint of realization, that some fair-minded editors of daily journals in the smaller towns of Illinois after reading these pages may be persuaded to consider the subject from a different view-point from that which they have heretofore assumed. If I might even make shift to gain the ear of a few sensible men and women, not either editors or physicians, who would listen without passion or prejudice to what is here set down, I should feel rewarded for my trouble. Since the members of your Board and hundreds of trained physicians throughout our State and country are well versed in all these problems, I have

written not for you nor for them, but under cover of your name and theirs in the hope of helping others.

The conservation of the health of the people is concerned with problems which interest all alike and which cannot be ignored by a few without danger to all. Springfield and Chicago have as great and as vital an interest in the well-being of Aurora, Peoria, and Dixon as have these towns in the health of the people of Chicago and Springfield. What damages one is harmful for all. We are tied together by indissoluble bonds. Surely in this day, when the men of the North and of the South are forgetting their old differences, when our brothers from all parts of a common country are shedding their blood in defense of our flag, when the Nineteenth is slipping into the Twentieth century, and there is promise in the future of less narrow ideals, broader aims, and of wider sympathies, men can ill afford to look in any other than an unselfish light upon questions that interest our domestic health and wealth. It is, let us admit it with thankfulness, a portent of good when the worshippers in so many of our churches Sunday after Sunday repeat the ancient formula, that "it may please God to bless and keep all His people," not those in this small town or that, not those only in the village inhabited by a few. "To keep all the people," this is the keynote of the best work of the physicians concerned with the public health, alike in Cuba and Porto Rico, in Springfield, and in Chicago.

These sentences may sound like platitudes, common-places from the lips of a political speaker or a demagogue, but in point of fact they furnish a solid basis for the best legislation, whether in a common council or in a senate chamber. They are often left unformulated by the busy physician because they are assumed to be granted and to require no superfluous demonstration. Yet it is not unwise when men's passions are aroused and their material interests are threatened, to repeat the text and to emphasize its importance. The family physician need not express in words his solicitude for those to whom he ministers. His personal attendance at all hours of the day and night, his obvious anxiety to relieve his patients, his gentle touch and kindly manner prove better than words that his is not a selfish and heartless task. But it is different with the work allotted to Bodies like yours. No member of your honored Board is expected to make assurances to the public that your mission is one of beneficence and not of harm to the commonwealth. The very official character of your work places you to a degree at a disadvantage when your acts intimately concern the health and comfort and the property of those in behalf of whom it becomes your duty to interfere. For we know that pestilence destroys property; even the dread of pestilence is a source of disorder and wretchedness and waste.

It is a higher and more exacting task to prevent than to cure. But it is a task often

thankless and unrewarded; indeed, in the past it has been rewarded, as among the French-Canadians in the anti-vaccination riots of Montreal, with a rain of missiles and with armed resistance to the law. The daughters of the Hebrew race in the days of their first king sang of Saul that he "had slain his thousands and David his ten thousands," but before another century ends the plaudits of the people will be based upon the nobler truth that while medicine and surgery have saved their thousands, the enforcement of public hygiene has saved its ten thousands.

An official authorized by you to inspect a portion of the State, and if possible to stamp out an epidemic threatening the health of its citizens and thus threatening the health of all the people, would be far more devilish than the Satan whom Milton depicted swooping down upon the happiness of Eden, if for an instant the health-officer could rejoice that the hour had struck in which he was to have the chance to close factories and schools, to quarantine men and women in their accustomed service and toil, to create disorder, and to set up barriers in the highways previously traversed by the many without let or hindrance. Rather should his visit be regarded as that of one coming like an angel of mercy to stand between the people and the pestilence, calling a halt upon its ravages and bringing order and comfort out of demoralization. Only a vast pity and profound sympathy move the trained expert who is summoned to a community suffering as have some of those lately visited by this epidemic.

The illogical and unreasoning speech and actions of those who set their faces against the regulations prescribed for the preservation of the public health, remind one of the action of the men of Devon and of Somerset described in the popular romance entitled "Lorna Doone," wherein it appears that the men of these two English counties, having set forth to exterminate the nest of the robber Doones, concluded by firing upon each other over the valley, instead of upon their actual enemies. In the discussion of the important questions at issue, how unwise to permit prejudice, passion, greed, or envy dictate to the judgment! These are the enemies of a judicial spirit, of the calmness with which reasonable men consider the troubles with which they are confronted, whether in war, in financial panics, in time of earthquake, or of pestilence. This is not the season for personal attack and carping criticism. Nor is it a time in which to hurl reproaches against those who might have done differently. Nor yet is it a day for upbraiding men with charges of ignorance and error. Rather is it a time for fraternal counsel and kindly suggestion. Many experienced physicians, wholly unaccustomed to the problems connected with this epidemic, have approached it from different points of view. They have been sufficiently wise to recognize that the symptoms in some points differed from their experience in other cases, and they have been cautious enough to make their judgment go

with their findings. We should respect their prudence and admit the skill with which they have treated so many patients without grave results. Many of us could learn much from them. If they have not at first accepted the correct view, ours it is merely to ask seriously, whether there are not very strong reasons for careful reconsideration of the subject. The people of this State owe an immense debt to the best of their physicians. The latter are both well educated professionally and as a class exceedingly intelligent outside of their special vocation.

The great majority of these long since have accepted the statements here made respecting the facts of the prevalent epidemic. None need fear that even a large minority of them will not accept, and promptly accept, the truth when it is clearly presented to them.

Even supposing that the small number of those who refuse to accept the facts herein set forth are quite in the right, and that those who are in accord with the view here expressed are wholly in the wrong, even thus the man of common sense will pause and weigh the facts before taking his stand lest he be betrayed into remediless error. He would be a prudent engineer who in the day of a tempest listened to the warning cry even of a lunatic before taking his precious freight of living beings over a dangerous bridge!

Now, there is no controversy possible in the matter herein considered. A scientific man will not be betrayed into argument where there are not two sides to be argued. For all the days of argument and controversy in this question have long passed, and few have the time to go back half a century in order to fight over the old battles which were waged by our grandfathers of narrower observation and less extended experience. This is not a contribution to a vexed question. It is an appeal to men to recognize long-established fact. There are no novel phenomena to be noted in the prevalent epidemic. Expert physicians in England, Germany, France, and Austria have long since investigated and expounded every one of the symptoms that have in this day bred so much indecision and confusion in the minds of observers.

The prevalent epidemic is one of smallpox (variola). To refuse to accept this fact is to be guilty of egregious folly and to commit a dangerous blunder. Fortunately, the symptoms thus far exhibited have been those of modified or mitigated smallpox. The question of chief interest thus awakened concerns chiefly the differences to be established between unmitigated, unmodified smallpox (so-called, variola vera) and the mild or mitigated form from which so large a number of our people have lately suffered.

The history, symptoms, and career of unmodified smallpox have been so systematically and fully recorded in medical literature that it will be needless in these pages to recount them. They are equally accessible to physicians and to laymen in the pages of the standard treatises devoted to the subject. In this

connection it will be needful merely to outline in brief terms the symptoms of the mitigated form of the disease as it now epidemically prevails.

In well-marked cases the malady is usually ushered in by a chill, or by sensations of unusual faintness, or even by milder symptoms. Not often has a history been obtained of long preceding languor and depression. The chill, when such is experienced, is followed by a rise in temperature and the records of many of these patients show that 105 degrees F. are often reached. Nausea, either with vomiting or amounting to merely a distressed feeling in the region of the stomach, may be present or be not perceived. Pain in the back, (lumbar ache) is relatively frequent. With these symptoms may be experienced headache, dizziness, and faintness. Dr. William M. Welch (Phila. Med. Journ., Nov. 18, 1899), has presented an admirable picture of the symptoms noted in the prevalent epidemic, and he adds that in children there is apt to be a tendency to stupor and that convulsions often occur. In from two to three days there follows either a complete disappearance of all the symptoms of fever, or a very pronounced reduction of the temperature. In a few cases this practically closes the career of the disease. In the most, however, an eruption promptly appears, first, as a rule, on the exposed portions of the skin, such as the face, including the temples, and the scalp and the neck, and hands, which, with greater or less rapidity, at the most in two or three days, becomes distinctly generalized, that is, it spreads over the general surface, involving the head, trunk and limbs, including the mouth, the palms of the hands, and the soles of the feet. This eruption, usually completely developed in twelve hours, is declared by the production of minute, distinct, isolated, and firm elevations of the surface (papules), which when compressed between the thumb and finger produce the impression to the touch of small-sized shot imbedded within the skin. Between the second and third days, on the summit of these shot-like elevations, develop "watery heads" (vesicles), having imprisoned within each a clear fluid (serum, sero-pus), which becomes opaque or cloudy in the course of the third or fourth day. In some of these isolated elevations (papulo-vesicles) there may be evident a distinct puckering or infolding of the top of the head (umbilication). In many cases, however, this symptom is either wholly wanting or but faintly declared at a few points to be discovered only after careful search of the entire field affected with the rash.

The watery stage of these elevated semi-solid points is more or less rapidly exchanged for that where pus is formed in each, and the resulting pustules in well-marked cases are in the course of the fifth or sixth day rather symmetrically distributed over the surface of the regions already named, the largest and most distended occurring as a rule over the exposed parts, such as the face and the hands. At about this time a very distinctly defined narrow reddish blush forms as a margin (halo) about

the elevated pock, which persists with greater or less conspicuousness until the crusts which form later are shed. The pustules are large, often as large as small beans; they may seem to "balloon" with matter; they are highly disfiguring.

Thus far in its career the disease corresponds to a degree with the usual course of unmodified smallpox, and in fact can rarely be mistaken for any other malady. It has been shown that even before reaching any one of the stages described, there may be a speedy relief of all symptoms and the patient may not only not have remained in bed, but may have actually undertaken the usual pursuits of his or her vocation in life. The most significant and startling contrast, however, between modified and unmodified smallpox is exhibited when the patient, after reaching the stage described, of complete development of pustules, suddenly ceases to betray any further significant symptoms of smallpox. The pustules dry rapidly into crusts, which are thrown off and leave the skin either somewhat stained at the points where the crusts formed or in nearly its normal condition. Some of the elevated points seem to recede; others with insignificant crusts atop each, when the latter are removed, resemble in appearance simple warts from which the head has been torn in the act of scratching. In yet others, semi-solid elevations (papules) of the skin remain, which do not betray the tendency to maturation (suppuration) displayed in other cases.

In the most of instances there is afterward an entire absence of the subsequent manifestations of unmodified smallpox, such as secondary fever, which in the severer forms of the disease is without question of septic origin. The grave consequences of the malady recognized in the nose, the mouth, the lungs, and the viscera, accompanied often by evidences of dangerous implication of the nervous centers, are all wanting. In rare cases, secondary fever has been recognized, but in a mild form.

It is claimed by some physicians that in the prevalent epidemic no scars are left at the sites of eruption, a statement which may be accepted as true for certain cases only. In others scarring of the face follows, but to a less severe degree than in uncomplicated smallpox. Certainly in this epidemic the eruptive symptoms are far more superficial than in unmodified smallpox where the deepest pustules work such havoc to the deep integument (the corium). //

The portraits presented by Dr. Welch of the form of mitigated smallpox which has been epidemic in several counties of Pennsylvania, furnish ample proof that the symptoms are those seen by our Illinois observers. The disease is one, and its manifestations are the same. In order to show that smallpox with precisely the same mild symptoms, and of exactly similar type is prevalent outside of both Illinois, Kentucky, Tennessee, and Pennsylvania, it is only necessary to read the reports made by physicians in

these other districts. By way of illustration I append the following extract from one of a series of letters sent me by correspondents in Kansas. The author of the following paragraphs is a physician of large experience and intelligence, filling a responsible office in his community. He not only gives a suggestive sketch of the epidemic as it has developed among his people, but also describes somewhat in detail the case of his own child watched by him with the anxiety of a father and with the care of a skillful practitioner. His letter describes a case of modified smallpox of the precise type now prevalent in Illinois and other States of the Union;

"My boy, nine years old, just recovering, has the following clinical history: Thursday noon, October 19th, he came home complaining of headache and dizziness, and did not want to go back to school after dinner. We kept him at home and he lay on the sofa most of the afternoon, but went out doors for about an hour. He had some fever, but was so slightly ill that I did not use the thermometer. Friday morning he rose and dressed and felt better, but about eleven o'clock had a chill which was followed by fever, temperature 103 degrees. I thought he was coming down with malarial fever, and so gave him quinine. The next morning his temperature was about 102 degrees, but he felt pretty fair until towards noon, when he complained that his feet were cold. His temperature at about nine P. M. was 105 1-5 degrees. We began bathing him with water of a temperature about 85 degrees, with a little alcohol added, and by 10:30 P. M. he had a temperature of about 103 degrees. He then went to sleep, resting quietly, calling for a drink two or three times during the night. On Friday he vomited several times, and I think once on Saturday. He did not complain of headache or backache except on Thursday. Sunday morning I discovered about half a dozen red macules on his face (left temple and cheek and right cheek), also several on his forearm and on his back. By night there were thirty or forty spots over his face, arms, and legs, and a few on his body over his chest and abdomen. Those that had appeared in the morning had increased slightly in size, had become papular, and showed a vesicle forming in their center. His temperature Sunday night was 101 degrees F. Monday morning new spots appeared, and more of the papules had become vesicles. His temperature was 99½ degrees and he was feeling quite easy. Monday night more spots appeared; temperature, 101½ degrees. Tuesday was about like Monday, but spots appeared larger, more raised, and with larger vesicles. By Thursday the vesicles first formed had reached as large a size as they ever attained. There was a slight red areola about them, but when the skin was compressed between the thumb and finger it was found that the inflammation was confined to the vesicles. The papules would at times feel a trifle "shotty" just before the vesicles formed, but when taken up

between the thumb and finger they felt decidedly less so. About the fifth or sixth day after the eruption a dark spot appeared in the center of the vesicle, which gave it an umbilicated appearance. If, however, examined sideways, it was seen to be not really umbilicated but only appeared to be so in consequence of the difference in color. This dark spot gradually got larger, and in about six days after the first appearance of the macule it began to turn white in color, then slightly yellow, and on the seventh day a scab began to form, which took about three to five days to drop off. If these vesicles are opened when they begin to turn white, that is, from a water-color to a milk-color, and the contents are squeezed out, there is left an umbilicated spot which scabs over and falls off quicker than those not opened. On the boy's face I opened those on the left side and left untouched those on the right side. This evening one-third of the scabs are off of the left side, and only one or two off on the right side. The last spots to appear were on the palms of his hands, and the soles of his feet."

Turning to the other cases of which between 200 and 250 have been seen by himself and his colleagues, this physician writes: "The two to four days (usually three) of fever are uniformly present. Most of the patients complain of some aching in the head, back, and limbs.

A few complain of severe aching. When the rash appears, there is uniformly a decline in the temperature and a feeling of relief. When the vesicles are not opened and pus forms, there is a slight increase of fever from about the seventh to the tenth day. If the vesicles are opened, and washed with some antiseptic lotion, little or no increase is noted. In none of the cases is there any deep or extended inflammation around the spots. They seem to be mostly in the epidermis or just below it, not in the derma. In a few cases there is umbilication, in about one to seven or twenty spots. Most of the spots are rounded throughout. The center of the spot holds the liquid and by pricking it all the fluid can be easily squeezed out. When the scab is formed, no pus is found under it if it is pulled off. The rash takes from two to five days to come out. It appears on the soft palate, one in eight to fifteen cases. The rash appears less frequently in the axilla and the groin."

The appended cuts represent some photographs taken of the disease as it has existed in the States of Illinois and Kansas during the past two months, and suggest at all points the disease as it has occurred within the past few weeks in our own State.

The State of Ohio, according to the report made by the Secretary of its Board of Health, Dr. Probst, (*) in the course of the fourteen months ending with June, 1899, was visited by an epidemic of smallpox, in which occurred 1,882 cases, with fatal results to 30 of those stricken. The description given of the disease,

(*) Jour. of the Amer. Med. Ass'n, Dec. 23, 1899.

as it was observed by the physicians of the 61 cities and villages attacked, corresponds so closely with that of the cases observed in Pennsylvania, Illinois, Missouri, Kansas, and else-



Child dead of Small Pox on 7th day of eruption.
Age 32 days. Illinois Epidemic.

where that it is impossible not to recognize the identity of the disease wherever it has appeared. In the Ohio towns, as in other localities, the disease was so mild at first that it was erroneously termed, both by physicians and others, "chickenpox" and "impetigo contagiosa." County fairs were held, theatrical



Epidemic of Mitigated Small Pox, Kansas Patient.

amusements attended, and public schools opened, with victims of the disease freely communicating with the unaffected. The vaccinated were mostly exempt, but a few of the

protected suffered. The preliminary fever was slight, the eruption superficial, and the eruptive period brief and irregular of career; secondary fever was rare, and pitting was exceptional. A few malignant purpuric and hemorrhagic cases were observed, some of these swelling the list of fatal attacks.

The patients affected with this type of mitigated smallpox in Missouri (more particularly in St. Louis), were affected in precisely the same manner as those observed elsewhere. The first cases seen were described as "chickenpox," but later the physicians in attendance freely acknowledged their error.



Epidemic of Mitigated Small Pox, Kansas Patient.

The objections raised against considering these and yet milder types of the prevalent disease as smallpox in a modified form cannot be supported by fact or well-founded argument. They may, however, be briefly noticed.

First, the objection is urged that the watery heads (vesicles) seen in the affected patients are not puckered (umbilicated) as in the types of smallpox described in the text-books. To this it is responded that in every epidemic the puckering, or, better, fluting of the apex of the fluid-containing elevations of the skin may be wholly or in part wanting. At times the entire body-surface is practically covered with these small elevations of the outer skin filled with a cloudy fluid, each as distinctly puckered (cre-

nated) as if the center of the roof were tied down by a centrally inserted thread. At other times one searches in vain for this interesting feature of which it may be remarked in passing that it is not, as has been generally taught, seen only in smallpox. Other pustular diseases exhibit the same feature at times, though few to the same extent as variola. This symptom has been fairly well marked in a few patients seen by me in the present epidemic. Dr. Welch has had a similar experience. In the most cases, however, it has not been recognized.

A second objection is based not merely on the universal mildness of the symptoms in patients of the class described above, but on an almost entire absence of symptoms in the case of men and women who have been discovered on the streets pursuing their usual vocation. There is nothing novel and extraordinary in these histories. They are, however, sufficiently familiar to physicians who have had a large experience with smallpox. The lassitude and discomfort experienced by some sufferers is either ignored or absent in others, particularly in those of a vigorous constitution and of adult years. The eruptive symptoms in these cases may be limited to a few and even to two "pocks" on the body surface. The verdict of smallpox which has been properly made in such instances has often excited the derision of uninformed persons. But the published and unrecorded experience of groups of these phenomena is too well established to be ignored. Smallpox, indeed, may occur without producing any eruption whatever (*variola sine variolis*), the verification of this fact being best made in the pregnant woman who after a chill and fever without any skin-symptoms whatever, afterward brings into the world a new-born child covered with pustules of the confluent disease.

A third objection is presented on the ground of the condition of the patients affected with the disease now epidemic when examined with reference to cow-pox (*vaccinia*). It is alleged that in the present epidemic the vaccinated and the unvaccinated suffer alike. This is an important allegation which demands a word or two of explanation.

Vaccination is a method by which protection is secured against smallpox by introducing into the human system another and different disease. This disease, cow-pox, is now well-known to be different from the malady produced by the intentional production of smallpox in cows, though there is remarkable correspondence between the two, the differences proving that the two diseases, if not identical, are certainly allied. Vaccination is a very remarkable and satisfactory method of securing immunity from smallpox, but it is far from being a perfect method. No ingenuity of man has yet sufficed to create absolute safeguards against the manifold dangers to human life. The strongest iron steamship that can be constructed may be crushed like an egg-shell under the blow of one of the largest billows in an Atlantic tempest. In the gravest of smallpox epidemics, for example, in the form known

as hemorrhagic variola ("black measles"), the vaccinated and unvaccinated suffer, not, it is true, in the same degree, but both suffer. I have seen a man die of confluent smallpox with two excellent scars from successful vaccination on the arm. Of the cases seen by me in the towns of the State of Illinois, four out of six of the patients have exhibited no signs of vaccination and have been unable to give any record of having been vaccinated.

Now, it is not true that on the whole the protected and unprotected suffer alike in the present crisis, but even when the disease is mitigated, an epidemic influence will explain the occurrence of smallpox in the vaccinated. It must be remembered that while the symptoms under consideration are extraordinarily mild when compared with the frightful scourge of the unmitigated disease, still the epidemic influence has been extensive and many patients even though not dying have suffered enormously. Some of them have been well-nigh covered with pustules, many have endured high fever. Fortunately, the physicians interested in the study of these cases find them of special interest and worthy of careful attention, but many of the victims of the prevailing epidemic have an aspect which proves in the highest degree loathsome and suggestive of horror to persons unfamiliar with the disease, who would probably, if occasion offered, flee affrighted from the presence of the sufferer. So, then, although the symptoms are unquestionably mitigated, still an epidemic actually prevails and one productive of serious, even if not always fatal, mischief. This epidemic influence is a potent factor. It is an influence exerted generally in any community attacked so that the susceptible suffer as they would not if a sporadic case, for example, of smallpox were by accident introduced among them. The French have a proverb which runs: "At night all cats are gray!" In an epidemic of smallpox the shades of difference between the protected and unprotected often appear to vanish. It is under these epidemic influences that men and women have several successive attacks of smallpox, one attack not furnishing immunity against another. These cases are rare, but they do occur and are sufficiently suggestive. I have seen a physician in a severe variolous epidemic suffer from an attack of ophthalmia whenever he was introduced into the chamber of a sufferer. At these times the unprotected, in whose persons at other seasons it is difficult to insure vaccination, receive the virus with relative ease and with excellent results. Hence if in a meager proportion the vaccinated suffer at the present time, it is not an argument against the prevalence of smallpox, it is rather a strong proof in favor of the prevalence of a smallpox epidemic, even if the symptoms displayed in the most of cases are mild or modified.

The same explanation is to be made in the cases where it is alleged vaccination has been successfully performed of patients convalescing from this modified smallpox. A few

instances of this exception to the rule have been adduced as triumphant demonstrations of the fact that no smallpox had previously existed. But such alleged proof is absolutely valueless and not in the slightest degree subversive of the established diagnosis. The facts are all explicable by the prevalence of the epidemic influence in smallpox, and point conclusively to the presence of such a disease and to none other. I have with qualified success vaccinated after modified variola; there is no reason why one or even a series of patients might not exhibit some vaccination-symptoms after suffering from smallpox in an epidemic form. It is to be remembered that a much severer test is made of the capacity of the patient when a virus is brought into actual contact with his body-fluids (as in vaccination) than when he is simply exposed through the medium of the atmosphere to the volatile contagion of a disease transmissible in that way. What physician would dare after the most successful vaccination of a patient at multiple points, to scarify the arm of that patient, and to attempt thus to introduce the virus of smallpox! He would be held criminally liable for the result, and that result in the time of a variolous epidemic, might be the transmission of smallpox to the person subjected to the experiment. The same is true of vaccination after modified variola when an epidemic is in progress. Brouardel has reported two consecutive attacks of smallpox in one patient, and in a blood relative of the same person six successful vaccinations at intervals of about six months. To sum up, then, in seasons of epidemic influence smallpox may occur several times in the same person; smallpox may occur in severe types in persons vaccinated; vaccinated persons may be revaccinated effectively at brief intervals; and vaccination may be followed by some results in persons convalescent from smallpox.

These facts being granted, it is nevertheless true that the immunity secured by vaccination is incalculably great and it may be well doubted if really typical results can be secured by the vaccination of persons convalescent from the disease now prevalent. It will be remembered that when referring to my vaccinations after modified variola, I did not say that *typical* results had been produced. An expert's description of the typical results of vaccination would probably differ widely from that of the inexperienced. Personally, I should view with great suspicion any report of typical results (scar foveation, areola, vaccinal fever, etc.) occurring after vaccination of the victims of the prevalent epidemic.

Vaccination after the onset of smallpox and when practiced in the early stages of that disease, is commonly effective, and if not protective in the way of aborting the disease, has a high value in modifying its severity. Even as recently as the current year, Kotowschikoff (*) has discovered that in the suppurative stages of smallpox successes may be secured by vac-

inating as often as twice in the day; and he has advocated this as a means of favorably influencing the course of the disease. But vaccination during the period of convalescence from smallpox, whether the latter be modified or unmodified, is typically successful only as a matter of very great rarity. The symptoms usually evoked by such attempts at vaccination are either the production of spurious and abortive pocks or what is more common the production of vesicles and pustules wholly unconnected with the vaccinal process. It is an established fact that after the occurrence of smallpox the skin is left in a very sensitive morbid state. It is the frequent seat of pustules, abscesses, carbuncles, and other pus-containing symptoms of the surface, and these are specially apt to be provoked where the needle of the vaccinator has been employed.

Turning now to the diagnoses erroneously made of the disease under discussion, many of its victims have been reported to suffer from chickenpox (varicella). An error here can scarcely be made by a conscientious and careful observer. Let it be thoroughly understood at the outset that the patient affected with modified smallpox may have milder symptoms than another suffering from chickenpox. The differences between these wholly distinct affections are not exclusively those of severity. We have seen that a man with modified smallpox may exhibit perhaps but two pocks on his body and even may be able to attend to his regular duties. While chickenpox is universally and justly recognized as a very much milder disease than smallpox, a child affected with a severe form of varicella may really be very uncomfortable for two days with the body extensively covered with the special symptoms of that disease. A man with a lion's cub for a pet would not dream of rating it below a fully grown German boar-hound because the cub was the smaller of the two beasts. He would know that in time the lion will be able to slay the big dog with a single blow of its powerful paw. This is quite suggestive of the difference between what might be called figuratively "baby-smallpox" and chickenpox. The former may extend and develop until it is competent to destroy human life at the rate of the most fearful scourges of the human race. But no degree of development or extension can ever convert chickenpox into anything more than a trivial affection.

Chickenpox (varicella) is ushered in, as a rule, by no pains in the loins, nor by nausea, vomiting, nor by a high range of bodily temperature for two or three days preceding the rash. At the most, there are but a few hours of mild fever in which the thermometer practically never rises as high as 105 degrees F., and the eruptive symptoms speedily appear, first as slightly reddened blotches scarcely larger than half a pea upon the surface, which rapidly become exceedingly superficial "watery heads" (vesicles) without the previous occurrence at the site of each, of elevated, firm, shot-like masses in the skin underlying each point. A feature of distinguishing importance in this

(*) Jour. of the Amer. Med. Ass'n, Dec. 23, 1899.

malady is the rapid occurrence of the eruption over the protected rather than as in smallpox over the unprotected surface of the body, and in successive crops, the patient at the moment of first examination, for example, exhibiting large numbers of blister-like "watery heads" (vesicles) over the back or on the chest, with a relatively smaller number on the face. At the height of the process a finger-nail can practically erase most of the evidences of trouble at any affected point. The velvety elevations are never puckered on the roof-wall of the single chamber containing the clear or opalescent fluid (serum); the crusts which form subsequently are thin and friable; the vesicles never develop into unmistakable pustules; at the worst, in from two to four days, the eruption and the disease are practically at an end. From first to last there is no suggestion of the career of even the most modified smallpox in the symptoms here enumerated. The mild fever persists during the eruptive stage, and at the outset of such a stage does not vanish or diminish, as in smallpox. Second attacks are rare; one attack confers no immunity from smallpox. Here the vaccinated and the unvaccinated suffer alike. Hence it follows that any patient exhibiting vesicles surmounting firm elevations of the surface of the skin, developing first on the exposed surfaces of the body, appearing on the third day after a high fever, with lumbar pain and nausea, and coinciding with marked fall of the febrile temperature, is almost certainly smitten with smallpox and not with chicken-pox.

One might almost wish that the late Tilbury Fox had never introduced his "impetigo contagiosa" to the notice of the profession, seeing that in connection with smallpox more sins of diagnosis may be laid to its door than in the case of any other disease in the nomenclature. A few considerations, however, suffice to stamp its individuality. The "watery heads" (vesicles) which appear with relative suddenness in this disorder and which are not only superficial but which enlarge by lateral rather than by deep extension, are absolutely the result of infection with pus-organisms at every point where the symptoms develop. With this simple fact in view all errors of diagnosis may be avoided. Impetigo contagiosa is for the most part what may be termed a "finger-nail-filth" disease of early life, chiefly of children or of young adults. The finger-nails, charged with the effective elements of the disease, convey these sparsely, not plentifully, to accessible portions of the body, the face, (lips, nose, ears, cheeks) the hands, the knees, etc. The later "stuck-on," friable, readily removed, superficially attached crusts; never implanted on a firm base, are justly regarded as characteristic. In our clinical experience it is rare that more than a score of these individual symptoms may be counted in any single person. Our English brethren report cases in which the disease is widely generalized; I have rarely, very rarely, so seen it. When fever coexists, as reported, it is unquestionably the

result of the irritation produced in the skin by the purulent germs. No patient displaying numerous pustules symmetrically developed and seated on a firm base, after the subsidence of high fever, is suffering from any form of impetigo.

The distinction between a patient suffering from a generalized eruption of the pustules of syphilis and another exhibiting the pustules of smallpox, is chiefly interesting as an academic study, inasmuch as not rarely, in the great St. Louis Hospital of Paris, and occasionally at my own clinic, patients are found standing in the line of applicants for relief, one showing smallpox pustules, and another next or near exhibiting the pustular symptoms of syphilis. Both, it may be observed, may have a slight rise in temperature.

But it is to be remembered that the generalized pustular rash of syphilis is really rare in America, seeing that the eruption finds amplest expression only in the persons of the extremely filthy, the victims of debauchery, drink, and poverty. It is almost never recognized among the well-to-do, the cleanly, the comfortably housed, and the warmly clad; however, often these latter may suffer from other symptoms of the disease. Of course, in any doubtful case, the history of syphilitic infection and the presence of other manifestations of the malady (mucous patches, alopecia, enlarged glands, traces of initial chancre) point to the truth. In syphilis the much slower evolution of the symptoms (time is a valuable aid to the physician in the diagnosis of smallpox), the obvious tendency of the pustules to cluster about the sides of the nose, about the cleft of the anus, about the ears, and near the line of the hairs at the brow, the peculiarly dirty-looking crusts which form at the apex of the semi-solid elevations of the surface, the failure of such distinct isolation of the individual pustules as occurs in all but confluent variola, are important diagnostic features. The patient with pustules of smallpox generally distributed over his body is usually found in bed. The syphilitic subject commonly makes shift to present himself at the out-patient department of a dispensary or hospital; in other words, the one readily, the other only with difficulty, tolerates his disease.

In view of the thoroughly characteristic features of even modified variola, it is almost superfluous to consider in detail the differences between its symptoms and those of eczema, acne, herpes, pemphigus, and the medicinal rashes. None of these is suddenly displayed after three days of fever and a rapid decline of temperature, in symmetrical development, attacking first the exposed surfaces of the body. The simple forms of herpes are generally seen clustered about the orifices of the body; the "shingles" variety (herpes zoster) is well-nigh invariably unilateral in disposition. Acne in pustular development affects the face, it is true, but is wholly unaccompanied by fever, and in its manifestations far outlasts all the symptoms of smallpox. The doubtful physician here, as so often when attempting to distin-

guish between similar affections, is aided by the passage of time. Pemphigus, in its manifold expressions, is not only a disorder, the skin-symptoms of which outlast, as a rule, the brief career of the eruptive features of smallpox, but it is one in which the blister-like elevations of the surface (blebs, bullae) are, as a rule, larger, and are filled with a fluid undergoing less rapidly than in smallpox the change to pure pus. With respect to the medicinal rashes, some of which, without question, are liable to be mistaken for the symptoms of smallpox, it is to be remembered that the withdrawal of the offending medicament is always followed by immediate amelioration of the symptoms in the skin. As in the other cases, the absence of fever and of a history of fever is to be considered in connection with the fact that very rarely indeed, if ever, do these rashes undergo changes consecutively from one type of eruption to another, firm elevations of the skin-surface, for example, changing to those exhibiting "watery heads" (vesicles) at the apex of the elevation; and these latter in turn changing to well-developed pustules. For the most part, the medicinal rashes develop in a single type, blushes, pustules, etc., appearing as such with promptness and not changing until the withdrawal of the efficient cause of the malady.

The severe and generally intolerable itching that distinguishes eczema need never be confounded with the excessive burning pain experienced by patients with a smallpox eruption over the face. A simple diagnostic difference will here suffice for the inexpert. There is almost never scratching of the affected part in smallpox, but that is a rare form of eczema in which at one time or another there is not only scratching, but also unmistakable evidence of scratching in the torn and abraded integument.

Returning to the prevalent epidemic of smallpox, it remains to explain, if possible, the mildness of the symptoms not in any one given case, but in such an extended series of cases, a mildness which has given rise to so much perplexity. I can think of no better illustration of this interesting fact than is furnished by another, even if vastly simpler, cutaneous affection, namely, the mosquito-bite.

Even the uneducated people of our country are thoroughly familiar with the results of an extensive attack upon the skin by the mosquitoes of densely populated and well cultivated regions of the United States. The mild results produced are, without any contention, due to the fact that for the most part the individuals attacked are the children of generations of men and women bitten by mosquitoes on this soil, who have transmitted their relative but not perfect immunity to their children.

Far different is it with those who come to our soil from countries where the mosquito has never feasted on the blood of their ancestors. Early in the Revolutionary War, and during their first summer in this country, the mercenary troops coming from Hesse-Darmstadt and Hesse-Cassel were so seriously attacked by mosquitoes on their march from Trenton, in

New Jersey, that hundreds of the men were unable to distinguish objects through their swollen eyelids and were rendered wholly unfit for duty. Precisely the same symptoms are now recognized in mid-summer, especially in the City of New York, where the newly arrived immigrants from portions of Great Britain in which there are no mosquitoes, are exposed for the first time to the incursions of the marauders. The results are often astounding to those unacquainted with the secret of their origin. The exposed faces are often enormously swollen and look to be affected with an erysipelatous process. Large blisters (blebs) rise from the excoriated surfaces. The limbs and even the trunk, particularly of women and children exposed during the discomforts of sleep in a tropical temperature to which they are wholly unaccustomed, may be affected equally with the face.

So should it be and so increasingly should it be, in the case of epidemics which can be mitigated by the skill of man, such as yellow fever, where we now know uncleanness plays such an essential role, and smallpox, where vaccination has worked such important changes. Science, in the long-run, comes to its own. Generations of our ancestors have been vaccinated and re-vaccinated, and even their unvaccinated children confess the influence of the immunity thus secured.

A modification of the potency of any germ may be produced by cultivation in special soils. We need to go no further than the bacteriological laboratories to find proof of this accepted fact. Fraenkel has demonstrated that an enduring decrease, even "a complete and irrecoverable loss of virulence," has been produced by artificial cultivation of most of the different species of pathogenic bacteria, and among these may be cited as conspicuous examples the germs of swine-erysipelas, of symptomatic anthrax, and of pneumonia.

Thus a minute organism descended from a death-dealing source may become in the culture-tubes of the experimenter as harmless as those found in an ordinary infusion of hay (*bacillus subtilis*). The mildness of the present smallpox epidemic can be accounted for rationally only on the basis of the very general practice during the last fifty years of vaccination of our people. Instead of being astounded at the result, we should greet it with a degree of satisfaction. It is the fruit of a century of progress. It is the dream of the exponent of State Medicine to modify in similar measures the several scourges of the human race.

War is as destructive as pestilence, and the one often sails in the wake of the other. "After the conflict, what disease?" is the query of the scientist. All our wars have left an heritage of some sort in unusual or unusually prevalent maladies. The battles of the Revolution were followed by such an extensive invasion of the itch that the public journals of that day are seen to be filled with advertisements of remedies for its relief. In the aftermath of the late Civil War, among other disorders, followed an unprecedented number of

cases of typhoid-malaria. Our armies in Cuba and Porto Rico have been lately exposed to smallpox at Holguin and other points. If, as seems probable, they brought back to us the contagion of the present epidemic, it should be noted that the carriers of these germs were not the natives themselves, but our own carefully vaccinated American soldiers. In these facts alone the scientist may find an explanation of the interesting features of the disease here discussed.

The names popularly given to the disease now epidemic in several States of the Union point more or less suggestively to its origin; for the terms "Spanish measles," "Cuban itch," and "Puerto Rico scratches" are frequently heard in the houses of the sufferers. The island of Porto Rico has, however, set a notable example to the smaller towns of this country in the way of stamping out the epidemic. Although in December of 1898 three thousand cases of smallpox were reported in sixteen of its municipalities, after the establishment of a government vaccine farm about eight hundred thousand natives were successfully vaccinated without rioting or disturbance, at a cost of about four cents for each individual; with the result that in less than one year (according to the report of Surgeon-Major Groff, by October, 1899) no case of smallpox was known to either the civil or military authorities anywhere in the island.

It seems scarcely necessary in this connection to call attention to the fact that even the mildest epidemic of smallpox may, under special circumstances, give rise to the most malignant cases of the disease. It has been already shown that the mitigation of the malady has been largely produced by the universal vaccination and re-vaccination of generations of the American people. Still it should not be forgotten that all the aggravating factors in the production of an epidemic are not yet wholly revealed to us. It has been supposed that certain climatic conditions have exerted some influence in one direction or the other. This, at least, is certain, that the introduction of even a single case of mitigated smallpox in a community which has been unvaccinated, has been again and again the fruitful source of one of the most fearful scourges that has ever afflicted the human family. Who, for example, would dare to introduce one of the victims of the present mild epidemic into such a community as that, for instance, furnished by the unvaccinated natives of Samoa! The consequences would certainly prove more formidable than if they had been subjected to a rain of the explosive missiles which have been forbidden lately by the Peace Conference at the Hague. It follows that only the most skilful and energetic measures should be taken to prevent the spread of the present epidemic, even in its mild form, as no living man can predict what type it may assume on the morrow or the following week.

The conclusions which one is justified in drawing from the facts here set forth are as old

as the days of Jenner and as imperative as in the year when the clear-sighted von Hebra wrote his chapters on smallpox so lucidly and emphatically that today they present a true picture, as well of the virus as of its most efficient antidote. Vaccination and re-vaccination of everybody—child, adult, foreigner, native-born—there is no other safe reliance for the present and the future. By the methods known and found most effective in the care of the public health the epidemic must be stamped out and the disease at last completely eradicated. We may well doubt whether a smallpox epidemic, even of mild character, could prevail in any of the smaller communities in England and Germany, where vaccination is so generally and efficiently enforced. It is said that the modern tourist, if he could be transported to the streets of London in the last century would be immensely astonished, not so much by the dress of the people, by the aspect of the shops, and by the odd-looking vehicles on the streets, as by the extraordinary number of pock-marked faces on every hand.

At last the English people have learned their lesson and learned it well. They have had a bitter experience of the devastation which smallpox is capable of working among their kindred, whether in the hovel or in the palace. They have mourned the loss of a gracious sovereign smitten with the pestilence on the very throne of the kingdom. While we may not wish to follow them in all matters, they have set us a worthy example in the methods by which they have buttressed their bulwarks of immunity. The germs of this pestilence are powerless against the army of their humble villagers and peasantry, ranks upon ranks of whom bear on the arms of each no fewer than four and often as many as six and eight scars of effective vaccination. Vaccination should be the sole passport of entrance to the public schools, to the voters' booth, to the box of the juryman, and to every position of duty, privilege, or honor granted either by the State or by the Nation.

I am, with great respect, your obedient servant,
JAMES NEVINS HYDE.

Chicago, December 22, 1899.

Marriages, Deaths, Change of Address

MARRIAGES.

Dr. Newland Doud and Miss Minnie E. Pasco, Chicago, Nov. 23.

Dr. G. P. Marquis and Miss Emily Chamberlain, of Chicago, Dec. 6.

Dr. Chas. M. Baldwin and Miss Jean Bevan, of Chicago, Nov. 30.

Dr. H. L. Corbus and Miss Josephine Corbus, of Kankakee, Dec. 7.

Dr. D. L. Hess and Miss Ora M. Stults, Hettick, Dec. 19, 1899.

Dr. F. E. Hall and Miss Daisy Ayers, of Oak Park, Dec. 21, 1899.

DEATHS.

(Furnished by State Board of Health.)

Bonynge, F. G., Chicago, Dec. 26, 1899, age 50.
 Bundy, S. H., Marion, Nov. 20, 1899, age 77.
 Brown, W. P., Greenville, Nov. 16, 1899.
 Bryant, Wm. W., Sycamore, Dec. 18, 1899, age 67.
 Cantwell, A. W., Davenport, Ia., Nov. 22, 1899, age 58.
 Hatch, H. Lee, Jacksonville, Nov. 24, 1899, age 55.
 Hess, Adolphus, Sidney.
 Hood, Emmet M., Mason City.
 Jencks, H. L., Galena, Nov. 20, 1899.
 Luke, E. J., Arthur.
 McFall, Howard M., Mattoon, Nov. 10, 1899, age 39.
 Maclin, W. T., DuQuoin, Dec. 6, 1899.
 Whitmire, Z. Lincoln, Urbana, Dec. 3, 1899, age 34.

CHANGES OF ADDRESS.

(Furnished by State Board of Health.)

CHANGES IN CHICAGO.

Barryte, Evan L., 315 Halsted st. to 354 W. North ave.
 Beach, J. C., 327 State st. to 3007 Cottage Grove ave.
 Butts, J. B., 374 Ogden ave. to 784 W. 12th st.
 Conrad, Sarah A., 692 to 690 W. Adams st.
 Cross, E. D., 3142 Prairie ave. to 3748 Albany ave.
 Davis, Effa V., 516 W. Adams st. to 100 State st.
 Dearlove, Mary A., 100 State st. to 972 W. Jackson Boul.
 Dorchester, C. O., 328 Well st. to 261 LaSalle ave.
 Eskridge, J. H., 4242 to 4166 Halsted st.
 Goldnamer, W. W., 3454 Indiana ave. to 103 State st.
 Goodwin, H. F., 59 S. Hermitage ave. to 214 Marshfield ave.
 Hartung, C. J., Wabash ave. and 22d st. to 26th and Canal sts.
 Hoelcher, J. H., 284 Belden ave. to 1669 Sheridan Road.
 Hofman, F., 650 to 560 W. Chicago ave.
 Irwin, E. A., Cook Co. Hospital to People's Institute Bldg.
 Lockwood, Chas. D., Cook Co. Hospital to 126 State st.
 Meloy, W. W., 149 S. Paulina st. to 734 W. Monroe st.
 Messinger, Celestia, 100 State st. to 7 Central Music Hall.
 Nutting, Emmogene, 1619 Diversey ave. to 168 39th st.
 Smith, Jennie E., 665 to 666 Sedgwick st.
 Topenka, Jennie T., 88 W. 18th st. to 2534 Wentworth ave.
 Wellington, Gertrude G., 100 to 92 State st.

CHANGES FROM CHICAGO.

Bacon, Jos. B., to Macomb, Ill.
 Blachly, Frank L., to Kalamazoo, Mich.
 Evans, Chas. W., to Europe, temporarily.
 Leenhouts, Abraham, to Holland, Mich.

Norden, Henry A., to Sturgeon Bay, Wis.
 Sickles, E. A., to Dixon, Ill.
 Solenberger, A. R., to Colorado Springs, Col.
 Winn, Chas. S., to Brion, Ill.

CHANGES TO CHICAGO.

Kinney, T. J., to 535 N. Clark st.
 Schmidt, F. W., Riverside to 13620 Indiana av.
 Wright, Emily, Rock Island to 853 Warren ave.

CHANGES FROM ILLINOIS.

Bennett, S. B., Fairview to California.
 Dunn, Wm. L., Decatur to Asheville, N. C.
 Fernald, W. J., Rantoul to Europe, temporarily.
 Kellar, A. L., Sullivan to Azura, Cal.
 May, Jesse W., Virden to ————
 McCambridge, P. H., Steward to ————
 Owens, D. W., Hersman to Colorado Springs, Col.

CHANGES TO ILLINOIS.

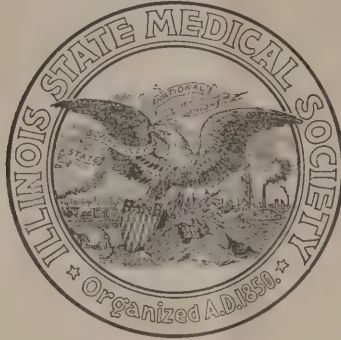
Arnold, Homus, to Braidwood.
 Biddle, Edgar D., to Mt. Carmel.
 Bush, J. H., Indianapolis, Ind., to Charleston.
 Fowler, C. A., to Gelena.
 Gates, L. A., Bridger, Mont., to Shannon.
 Gillham, C. W., to Warsaw.
 Gosselin, J., to L'Erable.
 Hayhurst, Wm. C., to Flat Rock.
 Hinman, Albert W., to Dundee.
 Jenrick, John, St. Louis to Freeburg.
 Mekemson, Robert, to Frederick.
 Rigg, Virginia C., New York to Springfield.
 Rutledge, J. A., to Elgin.
 Trott, John R., to Virden.

CHANGES IN ILLINOIS.

Ackley, Newton B., Macomb to Fandon.
 Burris, Wm. F., Sidney to Urbana.
 Colbourne, J. A., Pontiac to Ransom.
 Crawford, Geo. B., Hagerstown to Smithboro.
 Davidson, T. W., Abingdon to Fairview.
 Foreman, L. D., Waverly to Peoria.
 Guss, Wm. C., Barry to Mattoon.
 Hall, B. J., Fosterburg to East St. Louis.
 Holke, J. H., Topeka to Athens.
 Hart, S. F., Eddyville to Ottawa.
 Hickman, C. W., Pleasant Plains to Springfield.
 Justice, Wm. F., Summum to Littleton.
 Kincheloe, E. W., Boody to Sidney.
 Knox, W. I., White Hall to Manchester.
 Lambert, Curtis A., Princeton to Pontiac.
 Mayes, Jas. W., Dalton City to Sullivan.
 Midgley, R. J., Wilton Center to Ritchie.
 Ratts, Rinehart, Sidney to Longview.
 Ryan, Wm. S., Swedonia to Viola.
 Rideout, W. T., Atwood to Freeport.
 Rice, E. E., Apple River to Allison.
 Smith, Gould, Urbana to Homer.
 Smith, H. H., Joliet to Harvey.
 Smith, R. L., Pleasant Hill to Pawnee.
 Smith, Cyrus H., Rockford to Farmington.
 Shaw, Viola, Bradford to Pekin.
 Stuttle, A. L., Glenarm to Pawnee.
 Taylor, V. M., Chatham to Illiopolis.
 Trigg, Joe M., Waggoner to Farmersville.
 Zorger, Chas., Weldon to Urbana.

ILLINOIS Medical Journal

The Official Organ
of the
State Medical Society



A Monthly Bulletin
Edited by the
Publication Committee

Printed by
THE ILLINOIS STATE JOURNAL COMPANY.

Entered in the Springfield Postoffice as Second-Class Matter.

Volume XLIX.
New Series, Vol. I. }
Number 8.

Springfield, Ill., February, 1900.

{ Subscription, \$3 a Year.
Single Copies, 25 Cents.

SIXTEEN EXTRA PAGES IN THIS ISSUE.

TABLE OF CONTENTS.

ORIGINAL ARTICLES.

The Prevalence of Alcoholism and its Influence on Mortality—Geo. W. Webster, M. D., Chicago.....	355
Nervous Complications and Medico-Legal Relations of Alcoholic Inebriety—Daniel R. Brower, M. D., L. L. D., Chicago.....	364
The Treatment of Goitre—Albert I. Bouffleur, B. S., M. D., Chicago.....	368
Operative Treatment of Exophthalmic Goitre—Karl Doepfner, M. D., Chicago..	372
Traumatic Rupture of the Urethra—Emanuel J. Senn, M. D., Chicago	376
Fatal Perforation of a Uterus Partially Atrophied Post Partum. A Medico Legal Case—C. S. Bacon, M. D. and M. Herzog, M. D., Chicago.....	383
A Sociological View of Criminal Abortion—W. J. Fernald, M. D., Rantoul.....	394
Abstract on Pulmonary Tuberculosis—T. H. Stettler, M. D., Paw Paw....	403
General Uveitis—J. Whitefield Smith, M. D., Bloomington.	403

EDITORIALS.

Diagnosis of Small Pox.....	408
Failures Have Their Value.....	408
Corresponding Members.....	409

CORRESPONDENCE.

Why we called it Chicken Pox—Harriet E. Garrison, M. D., Dixon	410
Excursion to International Medical Congress, Paris, J. W. Pettit, Ottawa.....	411

COUNTY AND DISTRICT SOCIETIES.

Adams County Medical Society....	412
Winnebago County Medical Society	412
McLean County Medical Society.....	412
Morgan County Medical Society.....	412
Medical and Surgical Society of Western Illinois.....	413
Will County Medical Society.....	413
Sangamon County Medical Society.	413
Notices of Annual Meeting at Springfield, May 15, 16 and 17.....	414
Marriages, Deaths, Changes of Address....	415

IMPORTANT NOTICE.

From every part of the State come warnings from conservative physicians of the organized efforts which will be made by unscrupulous mercenaries and religious fanatics on the present laws regulating the practice of medicine and surgery in Illinois when the next Legislature convenes.

Numerous societies are discussing the best way of meeting these onslaughts, and all agree that thorough organization of the reputable men is the efficient weapon in our hands. In order to organize the profession the Legislative Committee have decided to call a meeting of the officers of all city, county and district medical societies at Springfield, Monday, May 14, 1900, at 1:30 p. m., in the Christian church. This call will embrace at least the President, Vice President, Secretary and Treasurer of each Society. If Societies desire they can send members of special committees on medical legislation in addition to or in place of these officers. A large and representative gathering of local Society members is what is desired. Officers will please inform me at once of their proposed action in this matter.

(Signed.) J. W. Pettit, Chairman,
Legislative Committee.

STARTLING FACTS.

As an illustration of the difficulty encountered by the State Board of Health in the enforcement of the Medical Practice Act of the State, and in partial explanation of the failure and inability of the Board to obtain the co-operation and assistance of physicians and medical societies, it is thought well to bring to the attention of the profession the following facts just reported to the Journal.

In one of the larger cities of Illinois, sixth in population in the State, there has practiced for two years past a notorious magnetic healer who has openly violated the law daily during that period. The attention of the Board was called to this man's practice early in 1898 by a physician residing in another city. The Secretary of the Board immediately entered into correspondence with one of the officers of the County Medical Society and asked for his co-operation. In reply the Secretary was informed that nothing was known of the practitioner referred to, who then had offices in one of the prominent buildings in the city and advertised largely in the local press. A few weeks later the Secretary took the matter up with other officers of the Society and again asked for the co-operation of the Society. In reply the Secretary was informed that the matter would be brought officially before the Society at the next meeting, and the opinion was expressed that the Board would receive hearty co-operation and support. A later communication stated in effect that the Society had voted unanimously to support the Board in its efforts to enforce the law.

The Board thereupon issued an authorization for the prosecution of the offender and requested the officials of the Medical Society to assist the Attorney of the Board in the prosecution. This authorization was issued in May, 1898. In August the Attorney brought suit, giving as reason for his delay his inability to procure evidence. The case dragged along until December, when a conviction was secured, but in the interim the Secretary had received many letters from physicians and others reproaching the Board for its inactivity and neglect.

As might be expected the defendant immediately took an appeal to the Appellate Court and continued his practice in his home city and others adjoining, in one of which the Board issued another authorization for his prosecution.

The Secretary of the Board heard nothing more of the case except through the medium of complaints against the practice of the "healer," until September, 1899, when the judgment of the Circuit Court was affirmed by the Appellate Court. Learning, however, (through the newspapers) that the defendant was still practicing, the Secretary issued another authorization for his prosecution and requested the Attorney who had represented the Board, to again bring suit. The County Medical Society was also again requested to co-operate with the Board and its Attorney. No reply being received to either communication, the Secretary one month later addressed a personal letter to the Secretary of the Society and inquired whether the Society was satisfied with the open daily violation of the Medical Practice Act in its home city.

As a result of further correspondence with the Secretary and his action before the Society, the latter, at the December meeting, appointed a committee to co-operate with the Board. This committee, however, has not had a meeting, *and as it is understood that one of its members will not act*, little assistance is expected from this committee as a whole, although the Board hopes to accomplish something through the efforts of one of its members.

In the meantime, however, the "defendant" is still practicing and unless all signs fail, will continue to do so.

The above is merely an example of the conditions of affairs existing also in other cities of the State in which the State Board of Health has endeavored, without success, to obtain even the silent co-operation of the local medical societies.

These points were dwelt upon by Dr. J. A. Egan, Secretary of the Board, in his informal address before the Physicians' Club of Chicago, on the evening of the 29th ult., on the difficulties of the enforcement of the Medical Practice Act, in which the Secretary attempted to show that with the co-operation of the medical profession, every section of the Act could be rigidly enforced, but that without such co-operation, the efforts of the Board, especially outside of Springfield and Chicago, were in many cases futile.

Mr. J. A. Barnes, the Attorney of the Board, was prevented by illness from attending the meeting, which is to be much regretted, for Mr. Barnes, in addition to his topic, "Practical Difficulties in the Passing of Medical Practice Acts," intended to speak at length on the difficulties attending an enforcement of the Act in Chicago especially, the medical societies of which fail to afford the Board the slightest assistance, although prominent members of the leading societies have taken upon themselves to criticise the Board for its inactivity, neglect of duty, etc. Mr. Barnes intended also to point out the fact that the Board, not only failed to receive the co-operation and assistance of the leading members of the profession, but that the Attorney in his efforts to enforce the law had on more than one occasion been handicapped by the actions of physicians prominent in medical circles, who have endeavored, without avail, however, to persuade the Board to ignore the practice of certain "specialists" in the city.

The Illinois Medical Journal.

The Official Organ of The Illinois State Medical Society.

VOL. XLIX.
New Series, Vol. I. }
No. 8. }

Springfield, Ill., February, 1900.

{ SUBSCRIPTION
{ \$3.00 A YEAR.

THE PREVALENCE OF ALCOHOLISM AND ITS INFLUENCE ON MORTALITY.*

BY GEORGE W. WEBSTER, M. D., CHICAGO.

Prof. of Physical Diagnosis, Northwestern University Medical School.

That the theme which has been assigned me is not without interest to the medical man, and that it is recognized as one which in no small degree concerns the welfare of the human race, is shown by the fact that within a month, the seventh of a series of continental meetings was held in Paris, France, at which the abuse of alcohol was the theme. The French minister presided, the meeting was of an inter-national character, and over 1,600 members were registered.

The president announced that the American contributions and papers showed positive proof that they led all the world in this field, as they did in other things.

The Paris Figaro, not a temperance paper, was very pronounced in its editorials on the need of the Congress and the danger of alcohol. It announced in headlines as follows: "Alcohol is death to the race. Alcohol will kill emperors as it has killed the native tribes of every country of the world. Alcohol means disease, tuberculosis, decay, sterility, impotence. It is another word for wickedness, cruelty, vice and insanity; it means misery and the downfall of nations, and the best way to prove patriotism and to be useful to one's country is to fight against alcoholism."

When I received an invitation from the chairman of this section to read a paper before it, I was assigned the topic, "The prevalence and mortality of alcoholic inebriety." This I have modified to read, "The prevalence of alcoholism, and its in-

fluence on mortality." This I have done for the following reason: In the physical sciences, one of the first steps is the establishment of units as of heat, work, etc., and in like manner, in a discussion of the topic like the one assigned, it will facilitate our thinking if we clearly establish what meaning we attach to the terms "inebriety" and "alcoholism." Not all drunkards are necessarily inebriates. I do not consider "intoxication" and "drunkenness" as synonyms of "inebriety;" and I take it that we desire to discuss the influence of alcohol, rather than the peculiar craze, or crave or disease which may impel one to drink it. By inebriety I understand what Kerr describes as "That overpowering morbid impulse, crave or craze, which tends to drive certain individuals to excess in intoxicants." The synonym is narcomania. The craving is not for alcohol, but for intoxication; the relief or satisfaction afforded by intoxication, no matter, whether the intoxicant be alcohol, or opium or any other narcotic; the latter itself perhaps being held in abhorrence. Alcoholic inebriety is then one of the forms of narcomania in which there is a mania for intoxication by alcoholic beverages. Alcoholism is defined as "the various pathological conditions, processes, and symptoms, caused by the intemperate consumption of alcoholic intoxicants." (Kerr.)

On the other hand, I wish to state clearly at the outset that when I shall speak of the influences of heredity, and of both crime and disease, I shall include both "inebriety" and "alcoholism."

Alcoholism may at first be merely a habit; the habit becomes organized; inebriety results and the disease inebriety may be transmitted.

PREVALENCE.

This is a very difficult question. At first

*Read at the 49th Annual Meeting, Cairo, May 18, 1899.

thought, it seems only necessary to consult the various tables of statistics and find the answer ready made. But here as elsewhere, statistics may be misleading. The following may shed some light on the subject.

The average annual consumption, in gallons, of alcoholic beverages is as follows:

	Beer.	Wine.	Spirits.
England	30.31	0.39	1.02
France	5.1	21.8	1.84
Germany	25.5	1.34	1.84
United States	12.3	0.44	0.84

Col. Carroll D. Wright, Commissioner of Labor of Washington, D. C., in a recent congressional report,² shows that the report of the Treasury Department gives the per capita consumption for the United States for the last year as follows:

Malt Liquors.	Wines.	Spirits.
15.16	6.26	1.00

Totals, wines 10,701,406 gallons; malt liquors 1,080,620,165 gallons. This shows an annual consumption for each man, woman and child in England, France, Germany and the United States, of over 25 gallons.

If we deduct from the total population, one-half for the teetotalers, moderate drinkers of both sexes, together with all children, then it means that each of the others consumes a grand total of over fifty gallons per year.

The English drink bill for 1898 was \$772,404,670.00. The drink bill of the United States for 1896 was \$934,813,314.00.³

Debove⁴ gives the following statistics for 1896,* showing the number of liters per head per annum of alcohol.

France	14	liters	per	capita	per	annum
Belgium	10	"	"	"	"	"
Germany	10	"	"	"	"	"
Great Britain	9	"	"	"	"	"
Switzerland	8	"	"	"	"	"
Italy	6	"	"	"	"	"

*These figures are confirmed by reports at the Congress which met in Paris, April 1899, in a letter from Dr. T. D. Crothers, and also Philadelphia Medical Journal, May 12, 1899.

Holland	6	liters	per	capita	per	annum
United States	6	"	"	"	"	"
Sweden	4	"	"	"	"	"
Norway	3	"	"	"	"	"
Canada	2	"	"	"	"	"

To figure of the prevalence of drunkenness, it only remains to determine how much a man can drink and remain sober, and how long he may remain a drinker, or a hard drinker, or a drunkard before he becomes an inebriate.

Dr. T. D. Crothers, one of the most eminent authorities on this subject, in a recent personal letter to the author, says, that after a careful study of this question, he estimates that 5 per cent to 8 per cent of the population are inebriates. Others place the percentage as high as 10 per cent. This demonstrates that alcoholism and alcoholic inebriety are not only prevalent, but one of the greatest national curses.

INFLUENCE ON MORTALITY.

A correct estimation of the influence of alcoholism and inebriety upon the death rate is one of the most difficult problems in connection with the study of alcohol. Vital statistics afford us no help. According to the published report of the department of health, of the city of Chicago, December, 1898, there were no deaths in the city from alcohol, during the year.

Statistics of the world attribute only about 3 out of every 1,000 deaths to alcohol.

In order to decide what influence alcohol has upon mortality, it is necessary to determine:

(1) Whether inebriety is hereditary; establish a relationship between inebriety and insanity; and between inebriety and crime and that both increase the rate of mortality. Increased liability to accidents while intoxicated.

(2) Determine whether there are any deaths due directly to alcohol and those due indirectly to its use. Under the latter heading we must discuss hereditary influences predisposing to inebriety; and second, the inheritance of an increased vulnerability to adverse conditions of all

kinds. Third, determine whether it has any influence in lessening normal vital resistance or immunity, thus favoring the occurrence of infection; also its influence on the course and virulence of the infection; and also the effect of alcohol upon the growth of pathogenic germs outside the body.

(3) Determine its influence upon the absolute power of muscle as this has an important bearing upon both treatment and mortality.

In making this inquiry into this subject, I have appealed, not to the temperance lecturer and enthusiast, not the partisan witness, influenced by financial considerations or hampered by his own bad habits, not to those who deal with the emotional side of the question, but rather to the man of science who has but one object in view; the discovery of Truth.

HEREDITY.

The transmissibility of an alcoholic, the inheritance has been generally admitted by such writers as Rush, Darwin, Morel, Grenier, Aristotle, Richardson, Thompson, Parker, Kerr, Davis and others.

Dr. Willard Parker says: "We must not forget to speak of the offspring of the inebriate. His inheritance is a sad one, a tendency to the disease of the parents is, indeed, as strong, if not stronger, than is the case with that of consumption, cancer, or gout."

This tendency has its origin in the nervous system. The unfortunate children of the inebriate come into the world with a defective nervous organization.

Kerr says: "The law of inebriate inheritance is as true as the law of gravitation." Again, "In over 3,000 cases of chronic alcoholism I have found one-half with an inebriate ancestry."

Kraft Ebing disposes of alcoholic inebriety as follows:

First Generation: Moral depravity, alcoholic excess.

Second Generation: Drink mania, attacks of insanity, general insanity paralysis.

Third Generation: Hypochondria, melancholia, apathy and tendency to murder.

Fourth Generation: Imbecility, idiocy and extinction of the race.

Morel gives the following:⁵

"First Generation: Alcoholic male excess, depravity and brutish disposition."

"Second Generation: Alcoholism, maniacal attacks and general paralysis."

"Third Generation: Sobriety, hypochondriasis, persecution mania, and homicidal proclivity."

"Fourth Generation: Feeble intelligence, mania at sixteen, stupidity, idiocy, impotence with race extinction."

Demme⁶ has compared the health history of 10 families of drunkards, with that of 10 temperate families as follows: The direct progeny of drunken parentage amounted to 57, of whom 25 died of insufficient vitality in their first year, 6 were idiots, 5 dwarfed, 5 epileptics, 1 choreic and idiotic, 5 had hydrocephalons, hare lip and club foot.

Of the non-drunken stock, there were 61. Five died of insufficient vitality, 4 suffered from curable nervous affections, 2 had congenital defects, 81.9 per cent were sound in mind and body during childhood and youth.

INEBRIATE HEREDITY IN CRIME.

Dr. Laurent, in his work on Inmates of Prisons in Paris, says: The prisons of France are inhabited in a great part by descendants of inebriates and degenerates. A total abstainer among criminals is an exception to the rule, while every alcoholic is not a criminal, this is due to accident and care of friends, for alcohol paralyzes the cerebral functions and annihilates the will, then the field is open to anger, impulsiveness and bad instincts.

Dr. Foli, in a work on Criminal France, says: "Alcoholism is one of the most patent causes of race degeneration." "Crime, which is the most powerful factor of alcoholism, never leaves the family or individual their primitive integrity."

Dr. Grenier, in a Study of the Descend-

ants of Alcoholics, says: "Alcohol is one of the most active agents in the degeneracy of the race."

Those tainted with hereditary alcoholism show a tendency to excess, and half of them become alcoholics. A large number of cases of neurosis have their principal cause in alcoholic antecedents. Epilepsy is almost characteristic of the alcoholism of their parents when it is not a reproduction in them, or when it is not an index of a nervous disposition of the whole family.

Dr. Baer, in his work on the Drink Evil, remarks: "In the later stages of alcoholism there is a considerable number of cases of pronounced insanity."

"Besides all these, there are numbers of drinkers on the border line between health and disease who, on account of their inherited mental weakness and consequent irritability through over-work, are given to alcoholic excesses. There is still a greater number of habitual drunkards, who are not insane, but who, through long abuse of alcohol cannot resist drinking. They reach such a degree of volitional and intellectual weakness, of irritability and stupidity, indifferences to customs and positions, and mistrust, and carelessness in regard to their family, that it is a question whether they are not a common danger to society. Such persons are most dangerous because their condition is latent and their attacks appear suddenly."

ALCOHOL AND CRIME.

"In Sweden⁷ the annual consumption of alcohol between the years of 1830 and 34 equalled 23 litres per head, and the number of murders committed 59; while during the three years from 1875 to 1878 the annual consumption was only 5 liters per head, and the number of murders only 18."

Arthur MacDonald tells us⁸ that "10,000 murders committed in France, 2,374 occurred in saloons."

"Out of 49,423 arrests in New York, 30,507 were drunkards." Again, "the haphazard life between plenty and poverty

is one of the main causes of premature death."

Daily papers show increase of murders after *pay day* and on Sundays and holidays.

Enrico Ferri, was the first to demonstrate⁹ that in France there is a correspondence of increase and decrease between the number of homicides, assaults and malicious woundings and the more or less abundant vintage. Also that during the vintage months, there is an increase of crime against the person.

These statements in regard to the influence of alcohol upon crime have been called in question by M. Tammes and M. Fournier de Flaix, the latter admitting, however, that "alcohol is a special scourge for the individual who indulges in it."

It has been proven over and over again, that alcohol has a baneful influence on both mental and bodily health, and the nation is made up of individuals. If it increases disease and crime among those who use it, it must correspondingly increase it in the nation.

SUICIDES.

Suicides from drink.¹⁰

England 12% of the suicides are from drink.

France, 12% of the suicides are from drink.

Prussia, 14% of the suicides are from drink.

Russia, 38% of the suicides are from drink.

E. Kaspar estimates¹¹ that 25 per cent of the suicides of Germany are due to drink.

Norman Kerr says:¹² "In over 3,000 cases (of alcoholism) I have found fully one-half with an inebriate ancestry, in addition to 6 per cent with a pedigree of mental disease."

"Hereditary craving for alcohol may proceed from parents, neither of whom possessed this craving, but were drinkers only by custom or sociability."¹³

Crothers traced a family history of inebriety in one-half of his cases.

Alcohol and evil disposition, with criminal tendencies, are ascribable to heredity, by Moreau.

Crothers says:¹⁴ "next to syphilis, alcohol is the most frequent cause of disease of the brain."

ETIOLOGY OF INSANITY.

Church says,¹⁵ in speaking of the etiology of insanity: "alcohol stands first (after heredity) as a single independent cause." Ten to 20 per cent in males.

Clauston says:¹⁶ "from 15 to 20 per cent of all cases of mental disease may be put down to alcohol as a cause, wholly or in part."

ALCOHOL AND CRIME.

In 1884, the legislature of Massachusetts directed Hon. Horace G. Wadlin, chief of its labor bureau, to investigate and answer the question as to how much pauperism and crime is due to drink. He investigated 26,672 cases of crime. He reported¹⁷ as follows:

In liquor at time of commission of offense 21,863, or 82 per cent. In liquor when intent to commit crime was formed 4,852; 4,295 others offense caused by the habit in 16,115 cases, drink had influenced the crime, and 94 per cent were addicted to the drink habit.

Statistics¹⁸ of the Belgium prison at Louvain show the following: Criminals received in 21 years, 2,826. Drunkenness at time crime was committed 12.4 per cent. In those under a life sentence 40.7 per cent, and in those condemned to death 43.1 per cent. Habitual drunkenness was proved in 44.7 per cent of total received, in 54, 6 per cent of those under life sentence and in 60 per cent of those condemned to death.

Dr. Muller¹⁹ estimates the number of suicides in Europe as 50,000 a year, and by an elaborate series of statistics, traces of alcohol the primary cause of its increase of late years.

M. Jules Le Jeune, Ex-Minister of Justice, says²⁰ of Belgium, "74 per cent of all cases in the criminal courts come from the

use of alcohol;" "79 per cent of all paupers are drunkards;" "80 per cent of all suicides have a similar origin;" "45 per cent of all lunatics come from the excessive use of alcohol."

These recent utterances are significant of a great change of opinion. The denial of any relationship between inebriety and crime, put forth so authoritatively in the face of such overwhelming proofs, can have no possible value.

IMMUNITY.

We must next inquire what the latest word is in regard to immunity. Hektoen says:²¹ "taking a broad view of immunity, the sensibility of living protoplasm is found to be a factor noticeable everywhere, in natural as well as in acquired immunity, against poisons as well as against microbes, and in the simplest unicellular and multicellular organism as well as in the higher animals including man."

"An inherited insusceptibility to toxins, as well as to inherited diminution of susceptibility, must be regarded as a well proved fact." "An immunity to living bacteria, the essentially active cells are to be regarded as phagocytes which incorporate living and virulent microbes, prevent their pathogenic action, or destroy them so completely, that they are rendered definitely harmless." This cellulo-humoral theory expresses the present knowledge of this subject.

We next proceed to inquire what influence alcohol has upon this "sensibility of the living cell" as well as upon the centres which control and the nerves which transmit impulse, whether of a trophic or other character.

Platinia succeeded²² in producing anthrax in dogs, frogs and pigeons naturally immune, by subjecting them to the influence of alcohol.

INFLUENCE ON MUSCULAR WORK.

Nothing in physiological chemistry authorizes us to admit that alcohol has a favorable influence on muscular work. Again it teaches, that while a few grammes of alcohol undergo combustion at the tem-

perature and under the conditions existing in the body, the increased radiation of heat more than compensates for this. As for the food value, before a man would get a square meal, he would be dead drunk.

This is the conclusion of Bunge and he is at the head of the modern school of physiological chemistry.

One of the most important questions in relation to alcohol and one that has an important bearing on the question of mortality, is the influence of alcohol on the total work product of muscle. This question has been very carefully studied and the results reported by Dr. E. Destree.

He clearly demonstrates²³ that the *total work product of a muscle is greater without alcohol*. This serves to explain why alcoholic inebriates bear pneumonia so badly. The prognosis depends on the ability of the right heart to do its greatly increased work until resolution sets in. The right heart is the portal through which death enters, and its entrance is invited by a heart muscle weakened by alcohol.

It serves to explain also the increased mortality in pneumonia where large doses of alcohol are prescribed. This also harmonizes with the results shown in the 34th annual report of the Commissioners of Public Charities and Correction of the City of New York for 1893, in which there is a startling relationship between the cost of liquors and the percentage of deaths.

ACTION ON SPECIAL SENSES.

Dr. J. W. Grovesnor has shown that,²⁴ alcohol, even in small doses has a paralyzing effect on the special senses. Feeling, seeing, hearing and weight.

Dr. J. H. Kellogg has ably demonstrated²⁵ that during an attack of any of the infectious diseases, the urinary toxicity is greatly increased, and in some, as pulmonary tuberculosis, it is doubled. The activity in destroying these substances and the kidney in eliminating them, are the physiological processes which stand between the patient and death. He has also demonstrated that the urotoxic co-efficient is enormously diminished by the adminis-

tration of alcohol reducing it to one-half, after a single dose of 8 ounces of brandy.

It seems evident that if in the infectious diseases the urinary toxicity is increased and that alcohol retards the elimination of the toxic substances, it is not a good thing to use in the acute infectious diseases, and that some of the mortality in these diseases is chargeable to its deleterious influence.

Fere says:²⁶ "experimental dosing of hens' eggs with alcohol, delays and modifies the development, monstrosities and anomalies resulting."

Furer says:²⁷ "the generative cells of drunkards are alcoholized, and their children degenerates, their resisting force against alcohol is thus diminished. *Evolutionary adaptation of mankind to alcohol is impossible.*"

ALCOHOL ON HEALING OF WOUNDS.

Mr. Kiparsky, in a communication to the Russian Medical Society at St. Petersburg, contends, as the result of experiments on rabbits, that the healing of wounds is retarded by either acute or chronic alcohol poisoning, as a consequence of the general diminution of the chromatic substance in the epithelial tissues, consequent upon lessened vital resistance and idioplastic energy of the tissues.

Alcohol causes atheromatous, fatty and cirrhotic changes in the vascular renal and hepatic glandular structures, and in fibrous and nervous tissue. As a result, we have arteriosclerosis, fatty and cirrhotic disease of the liver, hypertrophy and dilatation of the heart, gastritis, nephritis, as well as numerous and mental diseases, such as multiple neuritis, insanity, etc. Children procreated during drunkenness are often epileptic, imbecile, insane or deaf mutes.

One ounce doses of alcohol depresses and lowers sense, acuteness and activity. The rapidity of thought, the clearness of memory, the capacity to reason, the power to control the will, are all measureable by instruments, and all are lowered by alcohol. We can easily accurately measure the action of alcohol on the senses and on

these, alcohol is a paralyzant at all times and in all doses.

ACTION OF ALCOHOL ON MORTALITY FROM SUNSTROKE.

Dr. W. F. R. Phillips, in a very suggestive paper on "Meteorological Condition of Sunstroke," gives the following tables.²⁸ The first bears upon the event, and the second on the mortality. Eight hundred and forty-one cases were examined.

Using to excess	140	cases,	30%
Using moderately	230	"	50%
Using not at all.....	95	"	20%
<hr/>			
Total	465	100	
History unknown	376		
<hr/>			
Total	841		

One hundred and forty deaths occurred with the following history:

Using to excess	41	deaths,	60%
Using moderately	22	"	30%
Using not at all.....	7	"	10%
<hr/>			
Total	70	100	
History unknown	70		
<hr/>			
Total	140		

Alcohol lessens the absorption of oxygen by the blood corpuscles and the giving off of carbonic acid. Every function of the body is thereby affected is the testimony of Prout, Edward Smith, Harley, Schmiedenberg, Vieronly, Norman, Kerr and others.²⁹

Norman Kerr says:³⁰ "the experiments of Dogiel, B. W. Richardson and others, indicate that alcohol, even in very small quantities, affects protoplasm, and therefore the entire system. It tends to cause cessation of ameboid movement of the white corpuscles, and through this, increases liability to suppuration and the sluggish reparative action observed in drunkards. Its general effect is to inhibit the vital phenomena inherent in protoplasm, hindering thereby the resistance of the body to infectious diseases, while

the multiplication of the various bacilli in the presence of even minute quantities of alcohol, would seem to indicate that life and growth of destructive elements are promoted. The blood is improperly aerated and waste material is unduly retained in the body."

Ridge says:³¹ "even in minute quantities alcohol favors the growth of many pathogenic organisms, including those of pus and diphtheria."

ALCOHOL AND THE HEART.

Norman Kerr says:³² "the heart failure of chronic inebriates has for the last quarter of a century been continually presenting itself in my experience, often preceded by, or contemporaneous with, dilatation of the muscle. Alcohol has a direct action on the involuntary muscular system, and the heart is more responsive to its dilating action than any other part of the body structure."

ALCOHOL AND TUBERCULOSIS.

"Chronic alcoholism, by lowering the condition of the system, renders more liable to both acute and chronic tuberculosis." (Kerr.)

"One of the most efficient prophylactic measure against tuberculosis would be the repression of alcoholism."³³

Lagneau says:³⁴ "the increase of tuberculosis is proportionate to that of alcoholism in France."

Dr. N. S. Davis summarizes the results of investigation of the influence of alcohol upon tuberculosis as follows: "it will be observed from the foregoing collection of facts, that in one-third of the whole number of cases the tubercular disease commenced and progressed through all its stages, while the subjects of it were, at the time, and had been from one to twelve years previously, habitually using either fermented or distilled spirits. In but little less than one-quarter of the whole number, the disease was developed in subjects who had for years abstained from all such drinks. It is thus clearly demonstrated that the use of alcoholic beverages,

however, uniform their administration, and however long continued, neither prevents the development of tubercular phthisis, nor retards the rapidity of its progress."

Lanceraux, of Paris,³⁵ emphasizes the opinion which he has held for 30 years, that alcoholic excesses represent one of the principal causes of tuberculosis. Of course he recognizes the bacillus of tuberculosis as the cause, but claims that the alcoholism favors infection, by diminishing resistance.

Langneau supports these views,³⁶ showing that the increase in tuberculosis in France corresponds to the increase in alcoholism.

I believe that as alcohol lessens the total work product of the heart, and that it affects the mortality of tuberculosis in two ways. First, by its action increasing the tendency or susceptibility by lowering vitality, and by favoring careless habits of life and dress; and second, that it renders the body more vulnerable to tuberculosis and stands in the way of success in any form of treatment.

Heredity leaves the individual with low defective vitality, enfeebled powers of resistance, a mind less capable of a firm grasp on the affairs of life, less able to adjust himself to his environment, and thus with diminished chances of life, a tendency to fecundity, the offspring dying early.

Indeed the neurotic origin of tuberculosis has for many years been urged by Dr. Mays, of Philadelphia. That is, the neurotic, the inebriate inherits an increased vulnerability to adverse conditions of all kinds, and with this, an increased tendency to tuberculosis.

Dr. Haycraft in "Darwinism and race progress" declares that criminals, enebriates, lunatics, and consumptives, are all born with neuropsychopathic constitutions and in no other affections does heredity play so important a part.

Dr. Clouston, of Edinburgh, in a late report, says: "it is surprising how often insanity, consumption and inebriety ap-

pear in the same family, and flow down to extinction among the descendants."

Dr. Sharkey, of the London Pathological Society, claims that disturbances and lesions of the vagus nerve by lowering the nutrition of the lung, predispose to and become the nidus of the bacillus of tuberculosis. Hence, all inebriates are predisposed to tuberculosis and more are likely to contract this disease than are any others.

Crother says:³⁷ "20 per cent of all cases of inebriety die of tuberculosis."

ALCOHOL AND THE DEATH RATE.

The published report of the Bureau of Vital Statistics, Department of Health, Chicago, for the years 1896 and 1898, is as follows:

Chicago.	1896.	1898.
Population July 6, 1896....	1,619,226	1,619,226
Total deaths all causes....	23,257	22,793
Alcoholism.....	77	0
Erysipelas.....	73	49
Septicemia.....	92	114
Tuberculosis.....	2,667	2,829
Bright's Disease.....	656	1,048 Neph.
Heart Disease.....	1,231	1,237
Nervous Disease.....	3,018	
Pneumonia.....	2,141	2,477
Diphtheria.....	956	622
Small Pox. (1895 157.) (Av. for last 44 years, 145.)		
Typhoid Fever.....	751	636
Apoplexy.....	471	503
Cirrhosis of Liver.....	182	195
Uremia.....	110	0
Acute Nephritis.....	162	0
Killed by Firearms.....	51	
Manslaughter.....	69	77
Suicide.....	331	347

ALCOHOL AND THE RUSSIAN DEATH RATE.

An official inquiry³⁸ into the comparatively larger increase in the Tartar population of the city and government of Kazan has, according to the Kamsko Volshkr Krai brought out some remarkable facts as to the effect of alcoholic indulgence on the death rate.

The Kazan Tartar number about 640,000, have a rate of mortality of only 21 per 1,000, while the mortality among the Russians is 40 per 1,000.

The general conditions among the orthodox Russians and Mohammedan Tartars are practically the same, except in so far as personal habits are concerned. The medical investigation leaves no room for doubt that the lesser mortality of the Mohammedan Tartars is directly due to their

abstinence from spirituous liquors in which the Russians indulge freely.

At the Dublin meeting of the British Medical Association, a special committee appointed for the purpose, reported "that the habitual indulgence in alcoholic liquors beyond the most moderate amounts has a distinct tendency to shorten life, the average shortening being proportionate to the degree of indulgence."³⁹

CONCLUSIONS.

(1) Alcohol acts by destroying congenital immunity, increasing susceptibility, favoring by its direct influence the development of pathogenic micro-organisms, lessening the absolute strength of muscles, obtunding the delicacy of the special senses, causing changes in the nervous system whereby insanity is produced, the latter being transmissible, inducing inebriety which is a nervous disease and hereditary, and increasing the death rate both directly, and also by its tendency to exterminate the race, and directly causing such diseases as cirrhosis of the liver and chronic nephritis.

(2) As a result of the foregoing, infection is favored, the healing of wounds retarded, the infection of them by erysipelas facilitated, and the mortality increased.

(3) The liability to infectious diseases, especially tuberculosis and pneumonia, is very greatly increased because of the increased susceptibility, diminished powers of resistance, greater readiness of germ development, less care in providing against exposure, or in providing proper clothing, and also because the portal through which death enters in a case of pneumonia is commonly the right heart, and its absolute strength being impaired, the mortality is thus increased.

(4) Alcohol is one of the most potent factors in the etiology of cirrhosis of the liver, chronic nephritis, general arteriosclerosis and the non-inflammatory diseases of the heart.

(5) Alcohol is the chief cause of most of the cases of murder, suicide and many other deaths by violence and accident.

(6) Alcohol has caused more deaths in

Chicago in the last 3 years than has small pox in the last 43 years.

(7) The mortality lists for Chicago are not introduced by way of criticism of the department of health, because it does not assign the causes of death, it simply records them; but rather to show that they are misleading and fallacious because members of our profession are not calling things by their right names. If it is done out of respect for the feelings of the friends, why not call small pox an eruptive fever, for the same reason, shut our eyes to its presence, put up no warning cards, and make no effort to stamp it out or prevent occurrence.

You may argue that small pox is a contagious disease, but I maintain that alcohol kills not less surely.

(8) At least a part of the mortality is fairly chargeable to the medical profession because of a want of knowledge of the action of alcohol and because of its improper use as an alleged stimulant.

(9) Drs. Kerr and Richardson, of England, estimate that 10 per cent of all cases of death in England and Wales are due to alcohol.

Dr. T. D. Crothers, of Hartford, Conn., estimates that 50 to 60 per cent of all inebriates die directly from that cause.

Dr. N. S. Davis, of Chicago, estimates that 50 per cent of all cases of chronic nephritis, cirrhosis of the liver, non-inflammatory diseases of the heart, cerebral apoplexy and deaths by violence are due to alcohol. Undoubtedly we may safely charge more than 10 per cent of all mortality of all large cities to alcohol, thus making the death rate in Chicago alone, over 2,300 per year.

(10) To be successful, in the fight against alcohol, medical men can, more than others, contribute substantial aid by calling the attention of medical men to this disease of contemporary humanity; by calling things by their right names and classifying and designating alcohol as a *narcotic*, not a *stimulant*, in their writing and speaking about it; by taking the nec-

essary steps in the investigation of its effects and then a concurrence of opinion in teaching both publicly and privately, especially as to what constitutes an inebriate, and then his relationship as a diseased person, toward the church, the law and the medical profession.

BIBLIOGRAPHY.

1. Philadelphia Medical Journal, April, 1899.
2. Journal of American Medical Association, Feb. 11, 1899.
3. Quarterly Journal of Inebriety, Oct., '97.
4. La Presse Medical, Nov. 16, 1898.
5. 20th Century Practice, Vol. III, P. 129.
6. 20th Century Practice, Vol. III, P. 129.
7. Philadelphia Medical Journal, March 25, 1899.
8. Criminology, Arthur MacDonald, P. 89.
9. Criminal Sociology, Enrico Ferri, P. 117.
10. Mulhal's Statistics.
11. Mulhal's Statistics.
12. Sajous Annual, 1898, Vol. I, P. 209.
13. Forel, Medical Pioneer, Dec. 93.
14. Journal of American Medical Association, 1898, P. 842.
15. Church, Peterson, Mental Diseases, P. 635.
16. Clauston, Mental Diseases, P. 481.
17. Journal of Inebriety, Jan., '99.
18. Journal de Medical de Paris, Dec. 6, '97.
19. Westminister Gazette, '97.
20. Quarterly Journal of Inebriety, Jan., 1899, P. 100.
21. Progressive Medicine, Vol. I, P. 221.
22. Ernst, Infection and Inebriety, 20th Cent. Practice, Vol. XIII, P. 208.
23. Quarterly Journal of Inebriety, Jan., '99.
24. Journal American Medical Association, 1896, P. 1258.
25. Journal American Medical Association, 1895, P. 487.
26. Journal de l'anatomie et de la Physiologie Normal et Pathologiques de l'Homme et des Animaux, March and April, '95.
27. Le Bull Medical, Aug. 25, 1895.
28. International Medical Magazine, Aug., '97.
29. Medical Pioneer, Oct., '95.
30. Sajous Annual, 1898, P. 212.
31. Medical Pioneer, Oct., '95.
32. Pathology of Chronic Alcoholism, Sajous Annual, 1898, P. 216.
33. Thorain, in Revue des Sciences, Med. July 15, '94.
34. Le Bull Med., June 25, 1895.
35. Le Bull Med., Paris, March, 1895.
36. Le Bull Med., Paris, June 26, 1895.
37. Journal American Medical Association, 1898, P. 844.
38. Medical Record, New York, Aug. 27, '98.
39. British Medical Journal, Dec. 18, 1897, P. 1808.

NERVOUS COMPLICATIONS AND MEDICO-LEGAL RELATIONS OF ALCOHOLIC INEBRIETY.*

BY DANIEL R. BROWER, M. D., LL. D.

Professor of Mental Disease, Materia Medica and Therapeutics, Rush Medical College; Professor of Diseases of the Nervous System and Clinical Medicine, North-western University, Woman's Medical School, Diplomat of the Neurological Society of Moscow, etc.

The well recognized facts, that the prolonged use of alcohol produces important changes in the nutrition of the stomach, liver and kidneys, thereby interfering with the manufacture and purification of the blood, and that it may produce myocarditis, cardiac dilatation, and degeneration of the arteries, thereby interfering with the proper circulation of the blood, makes very reasonable, even without considering its direct effects, the marked changes that have been found in the brain, spinal cord and peripheral nervous systems. The changes in the neurons that have recently been demonstrated by the very active workers in this important field are truly marvelous, and give us hope of still greater discoveries in neuro-pathology that are not far distant, giving at least easy solution to many problems that now confront us. Having in mind these numerous pathological findings, it is not at all surprising that the nervous complications of alcoholic inebriety should be striking. The constant characteristic nervous symptom is the tremor. In acute alcoholism it occurs only on movement, and is irregular and coarse, and is most conspicuous in the arms, face and tongue, and in that of chronic alcoholism, it is voluntary, fine and irregular, and seen in the hands, lips and tongue. Acute intoxication, acute alcoholic mania and delirium tremens are the three ordinary mental manifestations. The first and third are common; the second is quite rare, and they may lead to alcoholic dementia, or alcoholic general paresis. Acute alcoholic intoxication is most promptly relieved by a hypodermic injection.

*Read at the 49th Annual Meeting, Cairo, May 18, 1899.

tion of the 1/60 of a grain of apomorphine to produce emesis, to be followed by full doses of strychnia sulphate, and chloralamid in from 15 to 20 grain doses, with an abundance of easily digestible food, to which red pepper should be freely added. In acute alcoholic mania a combination of sodium bromide, 20 grains, with the hydrobromate of coniine, 1/50 of a grain, every three or four hours, to subdue the excitement, followed by strychnia sulphate, with an abundance of nutritious food is good treatment.

In delirium tremens the indications are to produce sleep and to sustain strength, and they are met by paraldehyde in 30 minims to dram doses or trional in 20 grain doses, repeated, if necessary, a generous diet, with strychnia sulphate in full doses.

Another important nervous complication is multiple neuritis. Probably over 50 per cent of all the adult cases of multiple neuritis are alcoholic. The indications for treatment of alcoholic multiple neuritis are to quiet pain, sustain the patient, and relieve the resulting paralysis. The coal tar products are probably the best agents for the pains; strychnia and a nourishing diet will meet the second indication, and the third requires, first, the use of the galvanic current with mild applications, 5 to 10 milliamperes of strength, applied daily till the inflammation in the nerves subsides, after an interval of three or four weeks to be followed with the faradic current and massage, general nutrition being properly maintained during the treatment by tonics and eliminants.

Inebriety is a most complex neurosis, and it undoubtedly lays the foundation for the stigma of degeneracy, and has much to do with predisposing to epilepsy, insanity and crime.

Its medico-legal relations are important; but its jurisprudence needs to be rewritten. Law is eminently conservative, and it is today one hundred years behind the progress of neuro-pathology. Only yesterday, in Chicago, the State's attorney

proceeded to apply the test of knowledge of right and wrong to determine criminal responsibility, overlooking the very important fact that there may be this knowledge without the ability to pursue the right, and unless the defendant has both knowledge and power to act according to that knowledge, he cannot be scientifically regarded as possessing criminal responsibility.

Medico-legal relations may arise with reference to life insurance. That excessive drinking does impair the health is beyond dispute, and life insurance companies ask plain questions as to the existence of indulgence. But there is no doubt that medical examiners are often deceived by applicants and sometimes fail to give adequate attention to the matter. Life insurance companies undoubtedly lose largely from alcoholic inebriety. In contested cases, however, the companies generally fail because the burden of proof is with them, and even if they succeed in showing that the disease or habit certainly existed, they must also show that the concealment of the habit was wilful. Evidence of an intoxicated person is not competent; but the fact that a person has been declared an habitual drunkard does not raise the presumption of incompetency. A confession made by an intoxicated person is admissible as evidence against himself and others, provided it is corroborated by circumstances. Contracts made by an intoxicated person are voidable, but in order to void them, it must be shown that the degree of drunkenness must be such as to deprive the defendant of his understanding and make him what in law is called *non compos mentis*.

An alcoholic inebriate is not necessarily incapacitated for making a will. It must be shown, in order to invalidate it, that he was both intoxicated and incompetent at the time. Habitual drunkenness for two years in the State of Illinois gives good grounds for divorce proceedings. In the State of Illinois an habitual drunkard may be pronounced by the courts incapable of managing his estate.

Drunkenness shall not be an excuse for any crime or misdemeanor, unless such drunkenness be caused by fraud, contrivance, or force of some other person for the purpose of causing the perpetration of an offense, in which case the person so causing such drunkenness shall be liable. While alcoholic inebriety under the law is no excuse for homicide, evidence of intoxication may be used to explain the conduct and intention, and thereby minimize the punishment. Inebriety in itself is often, if it is not always, evidence of mental unsoundness, and the State fails in her duty in not taking more stringent methods for its prevention and cure, and as Norman King writes: "It ought to be the work of legislation to confine inebriate criminals, not in the prisons for punitive purposes, but in suitable hospitals for the treatment of inebriety," and inasmuch as the State legalizes and derives a very large share of her revenue from the traffic in alcoholics, it is her bounden duty to do something to minimize the serious effects of this traffic.

We should have the power to confine the alcoholic inebriate in suitable hospitals for a sufficiently long time to eradicate at least some of the effects of the drug, upon important organs. One or more years of continuous treatment will be necessary in many cases, to produce permanent results, and the power to restrain for a sufficient time should be given by proper legislation.

JOINT DISCUSSION ON THE PAPERS OF DRS.

WEBSTER AND BROWER.

DR. W. X. SUDDUTH, Chicago: The subject has been so well handled that discussion is hardly necessary. However, there are some points in the papers that might be brought out perhaps a little stronger, and perhaps there are some points where a difference of opinion may be said to exist. In the first place, as to whether the term inebriety is a disease or not, as a pathologist I would take exception to the use of the term by Dr. Webster. A disease, as we understand it, is a pathological condition in which we can demonstrate a change of tissue. We do not speak of functional diseases; we speak of functional derangements. Now, inebriety, as we understand the term, usually in its broadest sense, is a symptom of a disease. We cannot speak of a symptom as a disease; it is a manifestation of a disease. I do not believe that inebriety in that sense can be in-

herited, and I think in this point we overlook the central thought in the development of this condition or this habit. It cannot be said that drunkenness is a congenital disease. Tradition, a degenerate condition of the system, environment—those three things do not bring about the production or the development of the habit in later years; but we must not overlook the fact that in early childhood the tendency of dosing children with narcotics brings about this craving in the system which is held in abeyance until the child arrives at such an age when he can indulge this craving. Dr. Webster has brought out the fact that alcoholic inebriety is a condition of narcotism. I presented a paper, which was published in the *Journal of the American Medical Association* several years ago, in which I discussed the psycho-physics of narcotism, putting alcohol on the same basis as other narcotics. The doctor said it has been proven that alcohol is a poison, and that the sooner the medical profession come to realize it, the better. Poisons are essential in the practice of medicine. I hold that the physician who takes the ground that alcohol is not to be used in practice is wrong. Alcohol is a useful agent in certain conditions, and it is just as useful as digitalis, aconite, or strychnia. In the practice of medicine alcohol as a beverage is a poison, and in its use as a beverage is abused or misused. As a medicament it has its place in our pharmacopœia.

In the treatment of alcoholic inebriety the mere allaying of the craving is not a cure of the disease. Dr. Brower has brought out the point regarding the necessity of the State handling these cases because the mere allaying of the craving for the time-being does not cure the disease that may have been established in the nervous system, or does not give time for building up the moral nature of the patient. After years of experience in handling cases of narcotism I have come to the conclusion that more attention must be paid to moral regeneration, which is an entirely new aspect of life, a different way of looking at life, and getting patients away from the old environment, bringing them to the condition we want them. In the handling of these cases I use the nitrate of strychnia in preference to the sulphate. I have found that it operates more kindly. I have used morphine, as Dr. Brower has stated, with good effect. But I like the action of du-boisin in the control of the mania or the delirium or the mental states that appear in the secondary stages of alcoholism.

DR. A. K. VAN HORN, Jerseyville: It is proper that such excellent papers as we have had should be discussed. It is surprising to me to note that the medical profession are beginning to realize or do realize that alcoholism is a disease, or that dipsomania is a disease, and through the medical profession the general public will become educated to that fact and we will have less of it perhaps. For the last two or three years I have been treating people for dipsomania in my town, and I can corroborate what Dr. Webster and Dr. Brower have said

in their papers as being correct, and what we want to do is to stop the use of it as well as we can, and you will excuse me if I should say anything in regard to politics in this connection. I think the general government has a great deal to do with this business; it has gone into partnership in the liquor business. They have put a tax of ten cents on every gallon manufactured, and it helps to keep up this practice to a great extent. If you will excuse me, I will give you my opinion of what ought to be done to diminish this great curse. Instead of prohibition doing any good, it is a good stimulus to the liquor business and of keeping people drinking. My idea is that the government ought to go out of this business and let every man who wants to make whiskey do so; let every man who desires to sell whiskey do so; let every man who wants to drink it do so. If we take the money out of it, the evil will disappear rapidly.

DR. H. C. FAIRBROTHER, East St. Louis: It is only right the medical profession should express itself upon this subject, not from the side of enthusiasm, of prohibition possibly, but from the side of scientific study and results, from the side of the effect of alcohol upon the stomach, the nervous system, etc. That is the point from which the medical profession can discuss it and express its opinion upon it. It is a cheering fact that there is a change of opinion, as expressed by the best medical authors upon the subject, within the last quarter of a century along the line advocated in the paper of Dr. Webster, and the chairs on hygiene in our different medical colleges are almost obliged to take that stand in their teaching, because text books now on hygiene are not alone in that view. Rohe of this country, and Parks of England, who have written the leading text books upon hygiene, both advocate principles and practice in accordance with the papers we have heard to-day, and it is certainly very desirable for our profession now to get in line with those facts.

DR. WILSON, Cairo: From a medical standpoint, I do not think we are justified in eliminating alcohol. Take the normal organism, although alcohol is a poison we cannot eschew it altogether. I should be very sorry to see this, as I have seen opiates relieve pain as surely as I have seen the good effects of alcohol in certain states of the system. I have nothing to do with it as a beverage. Because it is a poison to the normal organism, that does not apply to a pathological condition.

DR. R. H. HENRY, Peotone: I have not been engaged in the practice of medicine as long as Dr. Wilson, yet this is a subject in which I have been deeply interested. I believe the statements of Dr. Webster and Dr. Brower are in the front ranks of scientific discovery. While we admit that alcohol is a narcotic and has its place in medicine, are we justified in continuing the use of anything in large or small doses when there may result an intolerable evil when once the habit is formed? No one will question the danger of an overdose of opium, and by its continued use the opium habit may be

formed. The same applies to the use of alcohol with the train of symptoms that accompanies alcoholism. Can we not use something that will take the place of alcohol? Can we not do without it? I have tried to do so. We have more diffusible stimulants, and we have tonics, and I think as we progress further we will find strychnia will do away with whiskey because the poor victim, when overcome by the use of alcohol, must resort to alcohol in some form or other.

DR. I. N. DANFORTH, Chicago: I would like to ask the last speaker how he gets along without alcohol. I have tried my level best for twenty years past to do without it; I certainly use very much less than I used to do; I certainly would use none at all if I could do so, but there are conditions that cannot be treated without it. I am aware that we use a great deal more alcohol than we need.

Again, I would like Dr. Brower, when he closes the discussion, to tell us how we can have these inebriates isolated. It is a very desirable thing and it ought to be done doubtless, but how can we get at it? We cannot legislate in this matter very well. How can we place inebriates under the control of the State?

DR. WEBSTER (closing the discussion on his part): Let me simply say, in attempting to answer some of the remarks that have been made, that the gentlemen have not been discussing my paper nor the issues raised in it. I did not come here to discuss the question whether we can get along without alcohol in our practice or not. But if asked that question, I should say most emphatically not. I am one of those who believe that we are not yet in a position to discard alcohol from our armamentarium, but because we like a drink of water we do not wish to be drowned in the Ohio River. I discussed the influence of alcohol, indirectly and directly, upon mortality. I maintain that both directly and indirectly it increases mortality. That was the question at issue in the paper. That was the question I tried to discuss. What I attempted to prove was that it has increased the mortality.

Now, in regard to what constitutes a disease, and as to whether inebriety is a disease or not, whether it is inherited or not, one of the speakers said that we cannot call it a disease unless there are pathological conditions. If I know anything about the influence of alcoholism, I do know that alcohol produces widespread pathological changes in the organism, not only in the nerve cells, as Dr. Brower has told us, but in practically every structure in the body. We have cirrhosis of the liver as the effect of alcohol. Is not that pathological? We have arterio-sclerosis as the effect of alcohol, and is it not a pathological condition? If I do not understand the vast pathological changes that are produced by alcohol, then I do not know what the meaning of the term pathology is. In regard to certain nervous conditions or certain neuroses, remote conditions of insanity, as I understand it, there may not be any great gross pathological changes

that are demonstrated in the brain; yet we do not maintain for a moment that the individual is a normal physiological creature.

Just before closing, I want to say a word in regard to the alcohol question, one that must be very encouraging to us as a profession. France consumes more alcohol per capita than any other country in the world. The mortality has been on the increase in France right along. I will say in the United States, as well as in many other countries, where this agitation has been going on, the abuse of alcohol is diminishing. In the United States it is gradually diminishing relatively, and this is an encouraging feature.

DR. BROWER (closing the discussion): In reference to the remarks that have been made, I wish to say that I did not have a word to say in my paper about the therapeutic uses of alcohol. It was not in the slightest degree involved in the question. What I had to write about was the effect of that form of narcomania that we call inebriety in its nervous complications and its medico-legal relations. If my opinion were asked for, I should say that I do not believe we can dispense with alcohol in the treatment of disease any more than we can of opium or chloral, cocaine, etc. Furthermore, I wish to emphasize what my associate in this symposium has said, that alcoholic inebriety is a disease, with a sure and positive pathological basis. Again, I desire to emphasize the fact that it is heredity that we are obliged to recognize, and I have no doubt that if those who have this inheritance can be placed in the proper environment early enough and long enough, they may be educated out of their hereditary tendencies.

Only a word or two more and I have done. My friend, Dr. Danforth, asks how can the necessary legislation be obtained? It can be obtained by this great profession of ours just as the necessary legislation was secured by us to give the insane people the medical treatment which they required. The members of this Society know that before physicians took hold of the question of insanity these people were regarded on the one hand as victims of diabolical possession, or as recipients of a special divine favor, and they were treated by the church and by the law. Physicians can revolutionize this matter just as they did the care and treatment of the insane, and in Switzerland today it is possible to do just precisely what I desire that we may be able to do in this country—give these people the necessary amount of forced seclusion until we can work them out of their abnormal condition.

The former officers of the Illinois State Board of Health were re-elected, at the meeting of the Board on January 9. They are: President, C. B. Johnson, Champaign; Treasurer, R. F. Bennett, Litchfield; Secretary, J. A. Egan, Springfield; Attorney, John A. Barnes, Chicago.

THE TREATMENT OF GOITRE.*

BY ALBERT I. BOUFFLEUR, B. S., M. D.

Assistant Professor of Emergency Surgery, Rush Medical College; Chief Surgeon, Monroe Street Hospital;
Attending Surgeon, Cook County Hospital;
President International Association
of Railway Surgeons, Etc.,
Chicago.

The frequency with which the presence of persistent enlargement of the thyroid gland is observed explains, to a large degree, the frequency of inquiry by the general practitioner as to the best method of treatment for goitre, and indirectly emphasizes the fact that the ordinary medical treatment of goitre is generally unsatisfactory.

The deformity which is caused by many of these enlargements is so conspicuous that their presence is looked upon by many, with no small measure of justice, as an opprobrium upon the art of healing.

To properly present the whole subject of goitre would take more of your time than I would be allowed, and much more than I would presume to occupy. I have, therefore, limited my subject to the treatment of goitre and the essential points in differential diagnosis upon which rational and successful treatment depends. It is not my purpose to condemn the usual methods of treatment, nor to advocate the curative virtues of any one method to the exclusion of all others, but rather to give each its just dues and to emphasize the importance of first determining the nature of the swelling, if possible, before instituting any plan of treatment.

In the first place, it is best to make note that all chronic enlargements of the thyroid gland are known as goitres, and, therefore, chronic inflammatory processes, benign and malignant tumors, and swelling resulting from degenerative processes, as well as the enlargement accompanying that serious disease known as exophthalmic goitre are included within the scope of this paper. Brevity will of necessity characterize the presentation of each phase of the subject.

*Read at the 49th Annual Meeting, Cairo, May 18, 1899.

We have three distinct pathological varieties of goitre; first, a chronic infective inflammatory process—ordinarily described as a parenchymatous or strumous goitre; secondly, tumor formations, including adenoma, carcinoma and sarcoma; and thirdly, that variety which occurs as a part of Graves' Disease. Other forms are either modifications or combinations of these varieties.

Struma is characterized by a uniform swelling which appears usually at or before puberty and which is endemic in certain parts of this country as well as of Europe. It is the most common variety and it involves all of one or more lobes, and its growth is usually slow and uniform. It is an hypertrophy of all the elements of the gland and presents the characteristic features of a chronic infective inflammation. Hard fibrous and vascular goitres are, as a rule, of the parenchymatous variety in which one element of the gland structures has been developed in excess of the others.

The next most common variety is the adenomatous form. They occur most frequently in cases of struma and are characterized by the appearance of one or more distinct nodules in the substance of the gland. They are benign tumors surrounded by a definite limiting capsule. They are of slow growth and do not increase after 50 years of age as a rule. They are not attended by metastatic growths nor by cachexia.

The development of cysts in both the strumous and adenomatous varieties indicate an advanced degenerative change. The contents vary in color from straw color to dark red in accordance with the proportion of red blood corpuscles, and the consistency varies with the character of the degeneration present. Like adenomata, cysts are limited by a distinct capsule or wall.

The malignant goitres are either sarcomata or carcinomata. They rarely develop as the primary swelling, but usually occur in glands which have previously been enlarged by a benign process. They

occur late in life and are usually manifested by a very rapid growth with early evidence of dyspnoea and cachexia.

The form accompanying exophthalmus, etc., is of the vascular type and is attended by marked circulatory disturbances with dilatation of the vessels. The greater frequency with which other and more serious and even fatal forms of goitre develop in persons afflicted with struma establishes the deleterious effect of the inflammatory process upon the resisting powers of the tissues and likewise emphasizes the importance of the thorough treatment of all primary affections of this organ while they are yet benign. The comparatively frequent occurrence of sudden death in patients afflicted with goitre of even small size adds additional emphasis to the indication for regular, systematic, medical and surgical treatment in all cases of goitre.

Struma is a chronic infective inflammatory process and is, therefore, favorably influenced by the internal, external and intra-parenchymatous use of iodine. The administration of iodine solution by injection has been practically abandoned on account of the serious and occasional fatal results which have followed its use. The intra-parenchymatous injection of iodoform emulsion ($\frac{1}{2}$ dram of a 10 or 15% mixture) is safe and often very successful. While iodine internally usually favorably influences this variety of goitre, it will rarely cure the condition. The internal administration of thyroid extract has apparently cured many of these cases, but it should be remembered that when this agent and also when sodium phosphate are used to the extent to cause diminution in the size of the goitre, there is some danger of the atrophic process thus instituted, progressing too far with the production of tetany and myxoedema. Thyroid extract should, therefore, be used cautiously and the patient kept under close observation. The dose should be increased to the limit borne by the stomach, and continued for six to eight weeks. If it does not cause a marked diminution in the size of the swelling in that time, its use will

probably be futile, and therefore, it should be discontinued.

While the medical treatment of recent, and what may properly be termed recurring, goitre is quite satisfactory, the results of the medical treatment of chronic goitre is generally unsatisfactory. This fact is abundantly proven by the immense number of cases in which it has been tried only to be abandoned, and for the lack of other treatment the cases have been allowed to progress as their tendencies determined.

The effects of injecting 15 minims of a 5% solution of carbolic acid into the substance of the swelling, like that of iodoform emulsion, have been satisfactory in many cases, and especially when it has been combined with the medical treatment for the condition. While this method is safe and unquestionably more successful than the medical, it, however, remains a fact of common knowledge to all of us that many cases are uninfluenced by either of these methods, and for these, enucleation or partial thyroidectomy is the only rational and satisfactory treatment.

It is true that the operation is a delicate one and often very difficult, and that it is always attended with considerable danger, but the dangers of the operation are but little, if any more than those of the condition itself, and the difficulties are such as experience readily overcomes. The best proof that the operative treatment is, after all, the only satisfactory one is found in the fact that it is the universal practice with most Swiss and German surgeons in those localities where this form of the disease is endemic to usually resort to the knife without even trying the less heroic methods of treatment. By leaving $1/5$ to $1/4$ of the substance of a normal gland the secondary dangers of myxœdema, etc., are obviated.

As strumous goitre is the common forerunner of the other varieties, allow me to again emphasize the importance of thorough and even radical treatment for this benign form of goitre.

Adenoma is a true tumor formation and

is, therefore, uninfluenced by any medical treatment, and consequently operative treatment is the only rational treatment for this condition. Enucleation is especially indicated in adenomatous goitre since the tumor has a distinct capsule which admits of its ready removal and there is no danger of disturbing the general nutrition of the patient.

Cysts of the thyroid gland should be treated as cysts of most other localities. If evacuation and the injection of carbolic acid solution or iodoform emulsion fails to obliterate the cavity, the cyst wall should be enucleated by dissection.

In carcinoma and sarcoma of the thyroid gland, we have extremely serious conditions to deal with. They are rarely primary affections and therefore, local eradication does not usually relieve the patient. It is, however, proper treatment to extirpate the whole gland when it is affected by a malignant growth, with the hopes that it is the primary and only tumor. Complete extirpation of the tumor and of the gland affords the only hope of successful cure. If it is attempted at all, the procedure must be very radical. Partial removal only stimulates the rapidity of the growth which invariably returns. Total thyroidectomy is usually followed by myxœdema, unless thyroid extract is supplied by mouth or by implantation of fresh thyroid tissue.

The removal of all or only part of the thyroid gland is always attended by the danger of injury to the arteries and nerves. Hemorrhage is frequently profuse and must be anticipated at every step of the operation. Paralysis following ligature of the recurrent laryngeal nerve has been observed several times, which emphasizes the importance of an accurate knowledge of the surgical anatomy of the region, and the necessity for careful dissection of the inferior segments of the gland. A proper appreciation of the disturbance of normal relations by the swelling, enables a careful operator to avoid injury to these nerves.

Enucleation of an adenoma or cyst is the ideal operation. It is comparatively

easy and simply requires careful dissection until the capsule is reached when separation is readily effected. Hemorrhages can be controlled by closing the wound with buried sutures or packing if necessary.

That form of goitres which accompanies exophthalmus, etc., is quite distinct from the other varieties as it is characterized by dilatation of the vessels and auscultation usually determines the presence of a distinct bruit. One lobe or all of the gland may be involved. It is accompanied by other symptoms which makes the diagnosis usually easy.

The disease has been successfully treated by division of the cervical sympathetic cord, and particularly by removal of the middle cervical ganglion. Previously the ligation of the thyroid arteries had been resorted to with some success. These cases should be given the benefit of a course of medical treatment, but as it is admittedly usually futile, we must look to surgical methods for relief. This plan of treatment is, however, yet under trial.

From our present knowledge of goitre, the following general conclusions seem justifiable.

1. Successful treatment depends upon accurate and early diagnosis of the nature of the goitre.
2. Struma should be treated by internal use of iodine or thyroid extract, and the intra-parenchymatous injection of iodoform or carbolic acid.
3. If these fail, either enucleation or partial thyroidectomy is indicated.
4. Adenoma should be treated by enucleation if the tumor is small, and by partial thyroidectomy if of large size.
5. Cysts should be treated by evacuation and injection of carbolic acid solution or iodoform emulsion.
6. If this fails they should be enucleated.
7. Sarcoma and carcinoma should be treated by complete removal of the thyroid gland with subsequent administration of thyroid extract.
8. The treatment of exophthalmic goitre is generally unsatisfactory and at

the present time surgical measures promise the best results.

9. Undifferentiated goitre may be treated by thyroid extract and iodine or intra-parenchymatous injections, and if necessary, operative treatment should be employed early.

10. The surgical treatment of all varieties of chronic goitre is generally speaking, the most successful and most satisfactory.

DISCUSSION.

DR. KARL DOEPFNER, Chicago: I disagree with Dr. Bouffleur as to the treatment of goitre. I would advise the country doctor never to use injections in the treatment of this affection, because he cannot be sure of an aseptic syringe which is an absolute necessity. It must be remembered that deaths have followed injections from infection alone, and the experience of most goitre surgeons is never to use injections. Some advise making a partial extirpation rather than resorting to injections. I recall two cases in Chicago in which iodoform injections were made, the injections being followed in one case by a severe strumitis. The surgeon at first thought he had to deal with a sarcoma and wished to make a thyroidectomy, but the tumor was opened with a Paquelin, and the wound healed kindly. A girl, 22 years of age, was injected with iodoform, and the next day she was blind in one eye; the eye suppurated, and was lost. These are the only two unfavorable cases I know of that have occurred in Chicago. If the country doctor does resort to injections in cases of goitre, he should see his cases very soon after. Enucleation is the ideal operation for goitre.

DR. A. K. VAN HORN, Jerseyville: The gentlemen in his paper omitted one remedy which I have used during the last forty years with success, and which I desire to mention in the treatment of goitre, and that is the application of the ointment of protoiodide of mercury. I have used it in a large number of cases with great satisfaction. Patients would come back to me in a few days after the application of the ointment and say they were worse; that the enlargement was growing, but after a week or ten days the goitre would begin to diminish in size and gradually disappear. If the ointment is applied early, before the gland is enlarged very much, I think we can very frequently arrest the growth altogether.

DR. BAYARD HOLMES, Chicago: This subject calls up the question of medical treatment, and I myself am fully at a loss to know how it happened, but not long since I came across a case of goitre in which I recommended its removal, and one of my colleagues gave the ointment which has been described—the protoiodide of mercury ointment. I am certain that the woman has no goitre now, and there is no scar in the skin which would indicate it had ever been removed. I cannot believe it

possible that she had a twin sister, or that I had been deceived.

DR. BERTHA VAN HOUSEN, Chicago: In reference to the treatment of goitre, I wish to say that my sister and myself had the disease and both of us were cured by the protoiodide of mercury ointment mentioned by a previous speaker.

DR. J. I. HALE, Anna: I have had my doubts as to the treatment of some cases of idiopathic goitre. Formerly I used the protoiodide of mercury in the simple cases of idiopathic goitre, but more recently, since I have become more familiar with electricity, I have resorted to this agent. I saturate the positive electrode with compound tincture of iodine, using a current of ten milliamperes, and a few applications will cause rapid reduction in the size of the goitre, particularly those reflex sympathetic symptomatic goitre occurring in young women or girls just about the age of puberty. I find it very efficient. I seldom have occasion to use more than half a dozen applications of electricity at intervals of three or four days or weeks, after which the goitre practically disappears. That has been my experience with a comparatively limited number of cases.

DR. H. W. CHAPMAN, Whitehall: I always have a little pot of the protoiodide of mercury ointment about my office; I use it freely in cases of goitre and have for years. I apply it with an ivory spatula, rubbing it in, exposing the goitre to the sun, using it about every second or third day. The patients are usually young girls and the goitres are of moderate size. I expect the goitres to disappear under this treatment. I have never seen one of the goitres increase in size for many years. They usually disappear under this treatment.

DR. BOUFFLEUR (closing the discussion): In regard to the protoiodide of mercury ointment and the iodine treatment, it matters little whether it is introduced by the mouth or through the skin, the effect of the iodine is the same on the goitre. The application of protoiodide of mercury ointment to the outer surface in treating goitres has been recognized for years and years. I did not mention the use of electricity because the numerous cures and reports regarding it have very frequently lacked authenticity. While they may have been cured by this agent, it emphasizes the fact that there are some forms of goitre which will frequently disappear under very moderate alternative treatment.

With reference to the remarks made by Dr. Doepfner, I am well aware of the fact that in the German universities they do not advise injection treatment, but that is no reason why it is not a safe method. There has never been a death to my knowledge from the iodoform emulsion treatment, and not a death from the use of carbolic acid as an injection. There has been from the use of iodine. I stated that specifically, and it has been discontinued for that reason. There have been innumerable cases of recovery reported from both the iodoform emulsion and carbolic acid treatment.

Enucleation for very small adenomata is the ideal operation. There is absolutely no reason why we should make a resection of the organ to remove simply a benign tumor like an adenoma or a cyst when we can enucleate it rapidly. These tumors are readily enucleated while they are small. Of course, if they are large, then partial thyroidectomy, as stated in the paper, is the proper form of operation, but it is not an ideal operation because we sacrifice the normal gland tissue, whereas in the other instance we preserve the normal gland tissue. That was the reason I mentioned it as the ideal procedure. The operation is difficult as the tumor grows larger, but when the tumor is small it is not so difficult. When you come to read text books on the subject you will be amazed because their authors use this expression: in making section through the normal tissue to reach the adenoma, when you arrive at the right point, enucleate. They do not tell us what the right point is. Such a statement is made in the American text books. When you reach the capsule of the gland, as long as the growth is limited to or by the capsule, there is no reason why it should not be enucleated. Hemorrhage from small adenoma can be controlled by buried suture or by packing in very few moments.

OPERATIVE TREATMENT OF EXOPHTHALMIC GOITRE.*

BY KARL DOEPFNER, M. D., CHICAGO.

The manifold symptoms of exophthalmic goitre are well known. The pathogenesis on the contrary is as yet very problematical. Theories we have had more than twenty, but not one of them could explain all the symptoms in a satisfactory manner. Pathological findings have been described in different organs but their interpretations were soon contested. More than a thousand papers have been written about this interesting disease and yet the discussion is far from being closed.

There are really only three different theories, the hematogene, neurogene and thyreogene (Eulenburg). But each of these has several subdivisions. For instance: the early writers had many things to say about dyskrasia of the blood, anæmia, scrophulosis, arthritism, even scurvy; so Graves, Trousseau, Basedow and their predecessors. Humoral pathology was in full sway. The believers in the neuro-

*Read at the 49th Annual Meeting, Cairo, May 18, 1899.

gene theory saw the trouble either in the sympathetic or in the pneumogastric nerve, in an affection of the bulbous or in a general vasomotoric neurosis. In 1886 the thyreogene theory came into evidence and its followers maintain that there is either a quantitative change in the secretion of thyreoidal juice—hyperthyreoidisation, or a qualitative change—dysthyreoidisation. Each of the three principal theories has its partisans today, even the hematogene, only the idea is now a much clearer one according to our better knowledge of physiological chemistry and metabolism.

But I repeat that there are many other theories, most of which passed into due oblivion. For not only did the pathologist not corroborate them, but the practitioner could not make any use of them for his therapeutical actions.

It took a long time until surgery began to participate in curing exophthalmic goitre. The surgeon first fought against symptoms only. The biggest operation ever advised in those days was tracheotomy (Trousseau) in threatening asphyxia during a paroxysm. As I consider bleeding to belong to minor surgery it must be mentioned here. Trousseau always recommended it, not with the view of combating the anæmia and the nervous element of the disease. "It is only with one end in view, namely, that of averting the imminent danger which results from congestion of the thyroid body, of preventing asphyxia by depleting the blood vessels, and quieting palpitation." (Lectures on Clinical Medicine, London 1868.) He really saw a marked improvement in such a case after a few hours, followed by a cure after some weeks. However, it must be said that at the same time he used digitalis in large doses and applied hydrotherapy. Others believing also and even more in dyskrasia of the blood, resorted to bleeding and had similar results. Remember this fact. It is true the old method of bleeding has long been abandoned, but do we not even today bleed our patients, only in a different manner? The celebrated von Graefe devised operations

against the sad complications of exophthalmos: tarsoraphia and a tenotomia partialis Musculi levatoris palpebræ. Some directed their attention to the struma: galvanopuncture was tried (Eulenburg, 1875), injections of iodine (Ollier, 1877), injection of perchloride of iron (Hanfield Jones, 1864, 10 minims; he never did it again), a seton was applied (Macnaughton Jones, 1874), followed by many months suppuration, chloride of zinc (Jones) and a caustic paste (Ollier), etc. But Eulenburg wrote (1878) that all these measures had been of little or no avail. Some specialist treated the nose (Hack, 1886) and, strange to say, had a success, a fact which corroborated the sympathetic theory.

Of a somewhat causal therapy we can only speak since Mœbius (1886) and Gauthier published their different views on the secretion of the thyroid gland and established the so-called thyroid theory (or thyreogene according to Eulenburg). Now only the surgeon had a reason to intervene, for there was some hope of curing this disease by partial or even total removal of the thyroid gland. I do not mean to say that before this time (1886) the surgeons did not operate upon the thyroid gland in exophthalmic goitre cases. Strumectomy was tried as early as 1860 (Tillause), later by Ollier and Lister (1877), and Tillause again (1880). In 1884 Rehn (Frankfort) published three cases, followed in 1885 by Mikulicz. But these operations, total or partial extirpations and enucleations, were undertaken only in order to combat one symptom, the goitre. Nevertheless some of the daring surgeons had cured their patients.

When Mœbius and Gauthier's very plausible theories became known the surgeons for the first time had a real argument which allowed a causal operative treatment upon the goitre. In fact, the final result of many operations soon seemed to prove that the primum movens of the disease had its seat in the thyroid gland, that is in its abnormal internal secretion which poisoned the body and produced

symptoms which otherwise were so difficult to explain. Different statistics have been published. Allen Starr, of New York, has collected 190 cases (Medical News, 1896, p. 427) in which number are included most of the European and American cases. As far as I can see, partial extirpation was mostly done. I cannot convince myself that all the cases described as total extirpation are true-thyroidectomies. For it is not such an easy matter to really extirpate the whole thyroid gland. Some of the cases were exothyreopexies (Poncet), others enucleations. Out of the 190 cases 45 can not be made use of for want of exact information. The results are:

74 cured	51%
45 improved	31%
3 not improved	2%
23 dead	15.8%

The most remarkable fact in this table is the percentage of death immediately after the operation (15.8%). And this death is not accounted for by hemorrhage or want of cleanliness or technique. From a few hours to a few days after the operation the patient may have sudden hyperpyrexia (104-107 F.) rapid pulse, restlessness, profuse perspiration, delirium and death from heart failure. We look now at the symptoms as an acute poisoning of the body by so-called hyperthyroidisation. The gland is supposed to secrete an abnormal (quantitative or qualitative, or perhaps both) juice in consequence of the irritation by the handling during the operation. This is a plausible explanation. But I doubt as to its correctness. For there are observations in the literature of similar symptoms followed by death without any operation. The physicians of that time called "paroxysm" what we now name "hyper or dysthyreoidisation." Exactly for these symptoms Trousseau advised bleeding, the old fashioned bleeding. And now our patients die when we have bled them according to our newest methods. Kocher himself, the most experienced operator for goitre, who has not had one death in his last 600

cases, has a mortality of 8.8% in the operative treatment of exophthalmic goitre (3 out of 34 cases).

There exists another statistic, which I think is the last one. Sorgo collected 174 operated cases which had been published from 1894-1896. In 2 cases the final result is not known, remain 172. Of these were:

Much improved	27	15.2%
Considerably improved	62	36.0%
Cured	48	27.9%
Not improved or worse.....	11	6.4%
Died soon after operation...	24	13.9%

You will notice that Sorgo makes 2 divisions with the improved, if not he would have as much as 51.2% improved patients. His number of cured shows only 27.9% instead of 51% in Allen Starr's table. It may be that in the latter table the "much improved" are numbered with the cured. For many a surgeon would perhaps say, this patient is cured, whereas the physician for instance would say: No, she, or he, is only improved. Therefore take it, like all other statistics, "cum grano salis." The death rate is lower but still high. It is to be remembered that the death rate in surgical statistics is rather too low. There is no more euphemistic man than the surgeon, if it comes to a discussion about death after operations: chloroform, ether, shock, intercurrent diseases and what else.

Until 1897 most of the surgeons recommended partial strumectomy in exophthalmic goitre. The general opinion was that any operation which effected the reduction of the size of the struma would benefit the patients (German congress of surgery, 1895). Some surgeons even had gone so far as to say that exophthalmic goitre was a strictly surgical disease, to which the physicians object, I think, with good reason.

In April, 1896, Jaboulay, of Lyons, had the idea of cutting the sympathetic nerve below the superior ganglion. The patient whose thyroid gland had already been subjected to different operations (exothyreopexy and partial extirpa-

tion) improved rapidly and was cured. Jaboulay's first sympathotomy, as he called this operation, was supported by the old theory that exophthalmic goitre was caused by an affection within the sphere of the cervical part of the sympathetic nerve. Two of the cardinal symptoms, he says, may be readily explained by the supposition of an intense excitation of the cervical sympathetic, namely exophthalmia and palpitations. So he performed this operation.

Jonnesco, of Bucharest, not only cut the sympathetic nerve, but resected the whole cervical part on both sides including the three ganglia (1896). This operation is called sympathicectomy. Not only should this very difficult operation be good against exophthalmic goitre but also benefit idiopathic epilepsy and glaucoma. His supposition is that the destruction of the whole cervical portion abolishes the irritation in the nerve which is responsible for exophthalmos, goitre and palpitation. Destruction of the upper ganglion, he thinks, prevents exophthalmos only. In February, 1899, he published his results in the *Centralblatt für Chirurgie*. Out of 10 operations for exophthalmic goitre he cured 6 patients. Four were decidedly improved. No death.

In France either Jaboulay's or Jonnesco's operations have been performed with good results many times within the last three years. I do not yet venture to compile the cases and give statistics. Suffice it to say that the old sympathicus theory is coming to the foreground again. Already Morat (*Presse Med.* 1897) and Dastre (*Compt. Rend. Soc. de Biol.* 1889) have undertaken physiological experiments in order to examine whether the surgeons are right. So far Jonnesco seems not to be wrong.

In this country, England and Germany the surgeons have been conservative. They adhere to the thyreogene theory. Many operations with about 50% of good results and 25% of improvements have been reported within the last 2 years in these

countries. But always that high death rate of about 15%.

All I have learned by perusing the literature, and out of my own experiences, induces me to come to the following conclusions: Exophthalmic goitre should first be treated by the scientific and well trained physician. I would give preference to a rest-cure and a mild hydropathic treatment. But, if after such a prolonged and careful treatment the patient makes no progress or gets worse, becomes intractable, partial thyreoidectomy should be proposed. The patient should be told the plain truth and decide herself without being pressed (Mœbius). If the heart is not yet overworked the outlook is better. Local anæsthesia is preferable to all other methods. Never use chloroform! Remove at least one-half of the thyreoid gland, if possible, more; but never the whole.

The surgeons should watch the progress of the new operations upon the sympathetic system. Sympathicotomy is an easy, sympathicectomy a very difficult operation.

DISCUSSION.

DR. DANIEL R. BROWER, Chicago: I desire to say a word or two on this important subject, and, first, to congratulate the doctor on his excellent paper and his very conservative conclusions. I have had a good deal to do with cases of exophthalmic goitre, and I have seen no good results from surgery yet. I have had to write a few death certificates, and I have had the opportunity of making some post-mortem examinations on persons who have died of this disease. I do not believe, from the post-mortem findings in those cases, which were largely due to serious organic changes in the medulla, that any one of the operations the doctor has proposed would have been beneficial. I do believe, however, that if we can get cases of exophthalmic goitre in the beginning—and usually the symptoms are so striking that patients soon seek relief—if we carry out the two suggestions which the doctor so admirably stated in his conclusions—rest and hydrotherapy, we can do a good deal for them. Rest in bed should be emphasized; give them the Weir Mitchell rest cure, which I need not elaborate here because you are all familiar with it. Give them electricity and massage and use digitalis, as Trousseau recommended, or, what is vastly better in my opinion, strophanthus. Give strophanthus in gradually increasing doses until you make an impression on the

heart's action, which you can do, as a rule, in those cases without disturbing the digestion.

There is another factor which I believe has a great deal to do with exophthalmic goitre possibly, that is, the increased secretion of thyreoidin from the gland and its autointoxication. I have not seen cases of exophthalmic goitre that did not have or present positive evidences of gastro-intestinal fermentation of the most pronounced character, with frequently large quantities of indican in the urine. We see, then, the necessity of attending to gastro-intestinal antiseptics along with prescribing rest, hydrotherapy, and some such cardiac agent as strophanthus. By such treatment a lower death record will be the result.

DR. GEORGE N. KREIDER, Springfield: I was much interested in this subject and can only commend in equally strong language the words of Dr. Brower in speaking of the paper. I want to speak of two observations I have made; both cases are reported in one of the January numbers of the Journal of the American Medical Association; they were of great interest to me and ought to be spoken of in this connection possibly. Some six or eight months after a lady had had her uterus extirpated she began to develop symptoms of exophthalmic goitre. It is true that there was no great exophthalmus, but a very rapid pulse and enlargement of the neck. By the use of strophanthus and rest these symptoms disappeared. There was one case in which exophthalmic goitre appeared after extirpation of the uterus.

Within the last eighteen months another case has come under my observation of a lady having exophthalmic goitre. There were no marked symptoms of the exophthalmus, but the other symptoms were present—enlargement of the neck and rapid pulse. She had fibroid disease of the uterus for which it became necessary to do something. On making an incision I found the uterus enlarged to the size of a child's head, and in addition a cyst of the right ovary, the condition of the uterus was such that it was deemed best not to take the uterus out, but to do a conservative operation, remove the cystic ovary, tie on the right side, remove the ovary on the left side and tie the blood vessels supplying the upper part of the uterus. After twenty odd weeks in hospital, during which time the pulse ranged from 106 to 148, and went as high as 168, she recovered. The intestinal symptoms of which Dr. Brower has spoken were particularly marked in this case. Sometimes there were vomiting and diarrhea, so that for days we thought she could not possibly live. Strange to say, she began to improve, and now she is in good condition. There still remain some symptoms; the pulse ranges from 120 to 130; there is some enlargement of the neck; the uterus has diminished in size very materially. She is an unmarried woman, and I have not made an examination on that account to determine how small the uterus is. The disease of the uterine body has disappeared. I think those two observations are of interest in this connection.

DR. KARL DOEPFNER, Chicago: With refer-

ence to the remarks of Dr. Brower, in many cases the medulla has been subjected to careful examinations and no pathological findings have been reported. I have the impression that exophthalmic goitre is a disease of metabolism, and the diarrhoea may be explained by auto-intoxication. Exophthalmic goitre must not be looked upon as a disease which absolutely tends towards death in the majority of cases. Most assuredly not. The last two cases that came under my observation were suitable for operation. In one the trachea was compressed and the larynx to the right side; the patient could not swallow very well on account of the tumor, and she had had attacks of suffocation, so I told her it would be necessary for her to undergo an operation. I told her husband the same thing. The woman refused operative interference, and she is now well.

Another woman, very poor, was in about the same condition. It was thought she would die, but she is now quite healthy, and if any of you were to look at her today you would hardly know that she had had exophthalmic goitre.

Some twenty years ago a case of exophthalmic goitre was presented before the Hamburg Medical Society, and it was thought the woman would die. A bad prognosis was given. It is said, that twenty years later another doctor presented the same woman cured without anything.

DR. DANIEL R. BROWER, Chicago: I do not wish to be understood as saying that exophthalmic goitre is of medullary origin. It is an auto-intoxication, and the medullary symptoms present in those cases were due to great vascular dilatation secondary to hemorrhage that had occurred in the medulla. It is an auto-intoxication, largely from the abdominal territory, somewhat from the increased production of thyreoidin by the gland itself.

TRAUMATIC RUPTURE OF THE URETHRA.*

BY EMANUEL J. SENN, M. D., CHICAGO.

Associate in Surgery Rush Medical College in Affiliation with the University of Chicago; Assistant Surgeon Presbyterian Hospital, Assistant Surgeon St. Joseph's Hospital, Chicago.

This subject is one of vital importance in the realm of surgery, as it belongs to the department of emergency work. It, therefore, not only concerns the surgeon, but more particularly the general practitioner who is called upon for prompt judgment and decisive action in order to save life. It is strange but nevertheless true that most authors on operative surgery deal in great detail with subjects of minor

Read at the 49th Annual Meeting, Cairo, May 18, 1899.

consequence and pass this great and important subject with a few remarks.

Ruptures of the urethra have been classified according to Terrillon into (1) interstitial (first degree); (2) rupture of the mucosa and submucosa (second degree); (3) rupture of the urethra through its entire thickness, either complete or incomplete (third degree). This classification is irrational, as it is often difficult to make a diagnosis according to this plan at the time of injury; except in the interstitial variety. We could only rely as a general rule on this classification after a perineal section or better after an autopsy. The best classification from a clinical and practical standpoint is that of Max Oberst into (1) partial rupture of the urethra without destroying its continuity; (2) complete rupture of the urethra, entirely destroying its continuity.

According to Oberst the mechanism of urethral injuries is generally thus: With the limbs spread the patient falls against some object which strikes the perineum. The perineum and urethra are thrown against the symphysis pubis with great force. As the urethra is bound to the symphysis by the pubo-prostatic-ligament, it is impossible to avoid impact against the lower border of the symphysis; or if the blow is more lateral, the urethra is crushed against the descending ramus of the pubis. The overlying skin, which is more elastic, usually remains intact. Oberst's ideas have been fully verified by the experiments of Terrillon. He suspended cadavers by the neck with a rope leading over a pulley. An object was placed underneath the subject in the axis of the perineum. The body was let fall suddenly, the perineum striking the object; the head and trunk inclining forward, producing in this manner rupture of the deep urethra.

Terrillon comes to the conclusion that if the trauma is produced by falling astride upon a narrow body, rupture is produced by crushing the urethra against the ischiopubic rami. If the body is large

enough to fill the pubic arch, the urethra is crushed against the anterior surface of the pubis. These experiments, although ingenious and convincing, do not give positive evidence, as in the cadaver circumstances cannot be compared with the living. In the dead body the tissues are flabby and not defended by the muscles of the perineum, nor protected by the resilient living tissues. Again there is entire absence of instinctive resistance.

Moreover, as Gayet has remarked, the body tends to swing to either side, and the object is apt to strike the internal aspect of the thigh, instead of the perineum over the middle line. The membranous portion is usually spared in experimental contusions, while it is more vulnerable to accidental injuries, especially kicks from behind when the body is inclined forward. Poncet and Ollier claim that not all ruptures are due to impact against the pubis. They insist that the force is directed against the triangular ligament, which cuts the upper wall of the urethra. They performed experiments by placing bougies of soft wax in the urethra and then striking the perineum with force. There remained an impression in the wax, corresponding well with the ligament. They state that this only applied to the membranous portion and that rupture of the bulbous segment is produced by pressure against the pubis. Terrillon and Emile Forgue have repeated the experiments, but never found the bougie notched. Forgue has no faith in Ollier and Poncet's theory, nor the practical point which such a theory would warrant, that is, passing the sound along the posterior wall in these injuries. Kauffman gives the statistics of the cause of rupture of the urethra in 239 cases as follows: 198, or 82%, were due to injuries a califourchon, that is, falling astride of some object; 28, or 12%, due to a blow upon the perineum; 9, or 4%, caused by being thrown upon the pommel of a saddle. There is no doubt that injuries a califourchon are the most frequent cause of rup-

ture. In fractures of the pelvis, especially of the pubic portion, the deep urethra is almost invariably torn, or voiding of urine is interfered with by pressure upon the urethral canal. Rose, in 10 cases, found that interference with urination remained free only in one case.

In fractures of the pelvic ring, the deep urethra, with the exception of the prostatic portion, is especially prone to be injured on account of its fixed position by means of the triangular ligament. Gosselin believes that fractures of the pelvis usually cause partial rupture. In all of Oberst's observations of such injuries the urethra was completely ruptured. Sometimes, as observed by Durand, there is rupture before the fracture actually occurs. This is most likely when the force is applied upon the perineum. In dislocation of the pubis, there is overlapping of the bones, and rupture of the urethra results, on account of traction on the triangular ligament. In severe contusions of the pelvis there may be rupture by reason of momentary dislocation of the symphysis. A few cases have been reported due to muscular action, caused by exaggerated adduction of the thigh. There may be partial rupture due to violent instrumentation. This is very likely to occur in dilatation of strictures of the nonresilient variety, and is most liable to happen in the bulbomembranous region. Even in careful manipulation hemorrhage readily follows, and it can be easily understood how an interstitial rupture could be a sequence of any forced effort at dilatation.

Injuries of the pars pendula are rare, being due to direct force or violent coition. They may come as complications of rupture of the corpora cavernosa, the so-called fracture of the penis (Hyrtle) or pseudo-fracture (Demarquay). The flaccidity and mobility of the penis are protections against injury. When injured, it is usually in a state of erection, although Voillemier and James Madden each report a case in which the penile portion was injured by a kick when in a flaccid state.

It is difficult to locate the exact seat of the injury with precision on account of the varying length of the urethra, the destruction and alteration of the position of the tissue by reason of blood-clots and infiltration of urine. Most authors do not report the exact location. Paoli, Socin and Fontan report cases due to injuries a califourchon in which the trauma was in the membranous portion. This subject has been given very thorough study by both Cras and Terrillon. The harvest of their research has been due to autopsies, experimental research and observations after perineal section for this injury. Cras claims the bulbous portion to be invariably the seat of injury. This is disputed by Guyon, who, while admitting that the bulbous portion is the most frequently injured, believes that the other portions are frequently involved. Terrillon described 9 cases, 6 of the bulb and 3 of the membranous portion. Kauffmann mentions a case of König in which there was a tear of both the bulb and membranous portion; also a case of Bourgeois in which the membranous urethra was alone involved. Oberst reported 5 autopsies, 4 of the membranous portion and only 1 of the bulb. Oberst makes a general broad differentiation (1) ruptures of the pars membranacea; (2) ruptures in the neighborhood of the neck of the bladder. To locate the seat of rupture with exact anatomic precision is often impossible as well as unimportant. The rule of Oberst in determining the seat of injury is approximate enough for the requisite surgical treatment.

The diagnosis of injury of the urethra is not difficult, but to arrive at definite conclusions as regards the extent of damage is another matter. Rupture is heralded by hemorrhage from the meatus. This may be a few drops to a continuous flow of bright-red blood. The quantity of hemorrhage is no criterion whatever as to the severity of the injury. The artery of the bulb might be lacerated by a slight rupture and the hemorrhage would be very profuse; while on the other hand there

might be a complete rupture, including the para-urethral tissues, followed by little hemorrhage. The urethral walls possess great elasticity and retract after being severed. The interim between the cut ends becomes occluded with a coagulum, in which instance the flow from the meatus would be scanty.

In complete rupture there is immediate interference with urination, but in partial rupture micturition may not be at first interfered with, but later there is complete occlusion, due to paraurethral infiltration. In the interstitial variety, there is difficulty of micturition, due to infiltration of the urethral wall and in that manner causing a temporary stoppage of the urethra. In three-fourths of all cases there is retention of urine due to coagula. Swelling of the perineum and scrotum results from a blood-clot in the paraurethral tissues, or extravasation of urine. A swelling immediately following an injury is from blood. A gradual progressive swelling coming on some time after receipt of the injury is due to extravasation of urine.

The membranous urethra is badly protected. It is invested by a very thin plane of muscle-tissue, the compressor urethra muscle. It is not supported by the tissues of the perineum, being simply suspended by the two layers of the triangular ligament. The origin of these is from the symphysis, after which they diverge gradually until the level at which they are pierced by the urethra, where they are about one inch apart. From this point downward, they converge and are inserted in the median raphe of the perineum. When the membranous portion alone is injured, there is extravasation into the cavity of the triangular ligament. Extravasation of urine cannot extend beyond the rami of the pubis and ischium without rupture of the anterior or posterior layer. In such cases a swelling is detected in the middle line of the perineum. When the rupture occurs in front of the triangular ligament there is enormous infiltration of the scrotum, and in neglected cases the

edema proceeds up the abdomen towards the umbilicus and down the inner aspect of the thighs. There is usually pain at the seat of injury, which is increased in attempts at urination. Escape of urine in the tissues, if not dealt with by proper surgical interference, is followed by infection, abscess-formation, and septicemia.

Normal urine in a healthy bladder is aseptic. According to Lehmann and Richter, it is even antiseptic; but after it has left the genito-urinary tract, it decomposes and causes toxic symptoms.

In severe cases we may say with Guyon that the cardinal symptoms are (1) complete retention; (2) copious and continual urethrorrhagia; (3) large perineal swelling. All injuries of the urethra, irrespective of accompanying complications, such as fractures of the pelvis, etc., must be considered with great apprehension, on account of the great liability of infection in this region. The prognosis in partial rupture is favorable as compared with complete rupture; especially is this the case in the so-called interstitial variety of Terrillon. Kauffmann, in unselected cases, places the mortality at 14%. As soon as a diagnosis has been made, catheterization affords an efficient and conservative measure to combat the most important indication, that is, retention.

In partial rupture, catheterization is often successful; in the complete variety it is seldom, if ever, attended with success, but serves as a means of diagnosis. A soft Nelaton catheter, well lubricated, or, better, preceded by an injection of olive-oil or glycerin, is carefully inserted and manipulated in an attempt to pass the obstruction. If this be unsuccessful, an effort may be made with a metallic catheter, as clots are more easily displaced, and entrance into the bladder thus facilitated. The metallic catheter is a dangerous instrument in the healthy urethra if handled by unskilled hands, and in the torn urethra is treacherous even in skilled hands. It should be allowed to find its way principally through its own weight. In catheter-

ization it should be remembered that in the great majority of cases the wound is in the posterior wall, in the region of the bulb; therefore, follow the anterior wall when there is the greatest likelihood of a portion of the urethra remaining intact to serve as a guide. The anterior wall has been well named by Guyon the "surgical wall." If there is doubt as to whether the bulbous or membranous urethra is torn, it is advisable to follow the anterior wall in the bulbous portion, and the posterior wall in the membranous urethra, as here the anterior wall is most frequently injured. If successful, allow the catheter to remain several days, as advised by Duplay. Kauffmann rejects this treatment. He claims a mortality of 13% when the catheter was retained, due to infiltration and abscesses at the seat of injury around the catheter. This great mortality can, in all probability, be greatly diminished in the future by frequent irrigation of the bladder.

Suprapubic puncture has had its day. It can only be recommended in extreme distention of the bladder. In itself it is a harmless operation and has been done repeatedly on the same patient. It fulfilled its mission in the preantiseptic age when both catheterization and perineal section were so often fatal. This measure was highly lauded by Orłowski and recommended by the French surgeons Civiale, Phillips and Gosselin in cases in which urine-infiltration had not as yet taken place. Böckel, Güterbock, Hüter, König, Neuber Nota, and Reybard allow puncture as a palliative means for draining the bladder, but insist that a restoration of the urethra by an external urethrotomy is still necessary. This form of treatment is only permissible for temporary relief of a distended bladder. The mortality of systematic suprapubic puncture is 19%.

In severe cases prompt perineal section is the logical treatment. In all cases in which catheterization is impossible, there is no other worthy procedure. When catheterization is possible, but there is a partial

rupture of all the coats of the urethra, perineal section is safer than assuming the risks of infection at the seat of rupture resulting in abscess-formation.

Perineal section was done by Chopart, Desault, and Lallemand, in the beginning of the century, and is confirmed at the present time by Cras, Guyon and Terrillon. As compared with the other methods of treatment it presents the lowest mortality, this being only 8.75%. It fulfills all the indications. Not only can the seat of injury itself receive the requisite surgical treatment, but, what is far more important, drainage is insured. Blood-clots can be removed, and if the case has proceeded to the point of suppuration, neighboring abscesses can be summarily dealt with. In complete rupture it is often a tedious and difficult task to find the proximal end, as there is retraction of the severed ends to the extent of an inch or two. Again, it is difficult to identify the urethra from the surrounding tissues on account of the bruised condition of the parts. Moreover, there is apt to be displacement by reason of blood-clots and extravasated urine. It has been advised to make pressure in the vesical region with the hope of causing exudation of a few drops of urine from the proximal end. This is very often unsuccessful because of a coagulum in the lumen of the urethra or a retraction of the cut end. In complete rupture it is generally the membranous portion which is concerned, and here the compressor urethræ is an important factor in thwarting such attempts. Fenger suggests that if a reasonable search for the proximal end is not crowned with success, to pack the perineal wound with an antiseptic dressing, aspirate the bladder and await developments. However, such a course appears fallacious. Procrastination is dangerous; although the patient is better off than relying on aspiration alone, as drainage is provided for and extravasation into the surrounding tissues is prevented; but it does not preclude the danger of toxic absorption.

When the proximal end of the urethra cannot be located, suprapubic cystotomy should be performed without hesitation, followed by retrograde catheterization. The operation is performed with little risk to life, the enormous distention of the bladder making an extraperitoneal incision much less difficult than under other circumstances.

The first case reported in literature was operated upon by Dr. Daniel Brainard, of Chicago, in 1848. However, the operation was done for impassable stricture. He punctured the bladder with a curved trocar, which was left in situ. Eight weeks later a bougie was passed from the bladder through the stricture. Volkmann claimed to be the originator of this technic in a case operated upon by him years afterward. Ranke performed retrograde catheterization through a trocar opening in the bladder, like Brainard.

Retrograde catheterization has its field of usefulness in desperate cases, as is verified by not a few successful cases in which it was resorted to, both for traumatic rupture and impermeable stricture.

Recently I had an interesting case of injury of the urethra under my care, in which I was forced to do posterior catheterization, and of which I will give a brief history:

Mr. C. A., aged 30, September 17, 1898, fell astride a box. After the injury, he experienced pain in the perineal region, hemorrhage occurred from the meatus, and micturition was impossible. He consulted his family physician, who, after considerable manipulation, was able to pass a metallic catheter. After emptying the bladder the catheter was withdrawn. In the course of a few hours the bladder became greatly distended. Catheterization was again attempted, but proved fruitless. I then saw the patient in consultation.

I found the bladder distended almost to the umbilicus and the patient in great pain. There was no extravasation of urine, but perineal bulging due to a blood-clot. The inner aspect of the thighs presented

several areas of ecchymosis, denoting that the object struck was large. The temperature was 99.6° and the pulse 100. I tried to pass a Nelaton catheter, but without success, meeting an obstruction in the neighborhood of the bulb. A perineal section was advised and the patient entered St. Joseph's Hospital.

I passed a staff into the urethra up to the obstruction and then made an incision into the bulbous urethra where I found the distal end and a large blood-clot. The tissues were greatly bruised.

Then began a wearisome search for the proximal end with a small probe. I could find no vestige of mucous membrane in a proximal direction. Manual pressure over the bladder failed to expel any urine. Retrograde catheterization presented the only prospect. The suprapubic region was disinfected and cystotomy performed. The index finger was introduced into the bladder and the vesical orifice of the urethra found. A flexible bougie was passed through the proximal urethra into the perineal wound. A large Nelaton catheter was attached and drawn into the bladder. A silk cord was tied to the proximal end of the catheter, brought out of the suprapubic wound and secured externally with an adhesive strip in order to master the catheter in the future. The distal end of the catheter was next placed in the penile portion of the urethra. The suprapubic wound was drained by a rubber tube, so that there was uninterrupted drainage from the suprapubic opening to the meatus. The perineal wound was packed with gauze. The patient was given salol and put on a light diet. After several days the tube in the suprapubic wound was removed and gauze drainage substituted. The catheter was allowed to remain. The bladder was irrigated daily with a solution of boric acid.

The patient was fast progressing to recovery when, about two weeks after the operation, he was suddenly seized with a chill followed by a temperature of 105.4°, and a pulse of 110. The bladder was at

once irrigated and this was continued every 3 hours. A tube was reinserted in the bladder wound. Large doses of quinin were administered. Bacteriologic examination of the urine showed streptococci and the bacillus coli communis to be the cause of the cystitis. All the symptoms of a violent cystitis continued for 10 days, when they abated and the patient rapidly recovered.

The unfortunate secondary infection detracted somewhat from the success of this case, but had no bearing on the technic of the operation. After leaving the hospital, the family physician passed a steel sound several times, but since that time there was no further dilatation. I have kept track of the patient since, but the stream of urine voided has never become diminished in size. I attribute the remote good result to the fact that the catheter a permanence was allowed to remain in situ such a continued length of time (20 days). The many cases of stricture following traumatic rupture are due to the too early removal of the catheter. Most works on surgery only advise 5 or 6 days.

In recent years urethral wounds have often been repaired by primary suture. Kauffman and, after him, Hägler have demonstrated experimentally that primary suture is not followed by cicatricial contraction. Hägler, in one of his experiments, cut the urethra through its whole circumference. He then united the two ends with catgut sutures which incorporated the entire thickness of the urethral wall. The external wound was closed except at the lower angle. No catheter was left in place. In 9 days the wound was cicatrized and micturition normal. Two months later the animal was killed. The urethra was found in a normal condition, no cicatrix being visible. He strongly urges suture of the urethra itself, or juxtaurethral suturing with catgut, together with closure of the external wound, as the best means to prevent subsequent stricture.

Nogues collected 19 cases of rupture, in which the urethra was sutured with satisfactory results. Manley, Pearce Gould,

Boisson, Rudolph Frank, and Delorme have reported successful cases. Delorme's case was done two months after injury. There was a space of 2 centimeters between the ruptured ends, filled with fungous granulations. These were removed with a curet, the ends vivified and sutured. The condition of the patient is reported as satisfactory four months later.

On the other hand, G. Baring, of Birmingham, reports 3 cases in which immediate suturing did not result satisfactorily. Primary suture appeals to the thinking surgeon.

However, taking into consideration the most frequent cause of rupture of the urethra, it is evident that the great majority of such wounds are contused and not incised wounds. Contused wounds are unfavorable for primary healing on account of the disorganization of the tissues. Kauffmann's and Hägler's experiments give very little convincing evidence in favor of this operation, as they produced incised wounds which are favorable to definitive healing. The success of the other cases recorded would probably have been as good if treated by perineal section alone; provided a catheter were left in the urethra a requisite length of time. Cicatricial contraction in this locality is very prone to occur if the urethral walls are allowed to collapse.

Le Fort found the urethra occluded 24 days after accident. Queen found the same condition in 3 weeks. His case was a mild injury a califourchon. The patient at the time of injury passed only a few drops of blood, had slight dysuria and no perineal swelling.

In incised wounds primary suture should be the rule, but in contused wounds a few paraurethral sutures should be inserted, merely to prevent retraction of the severed ends. The perineal opening should never be entirely sutured, as free drainage cannot be dispensed with without direful results.

The Chicago Neurological Society had its annual meeting Jan. 18. Dr. H. M. Lyman was elected president, and H. T. Patrick vice-president.

FATAL PERFORATION OF A UTERUS PARTIALLY ATROPHIED POSTPARTUM—A MEDICO-LEGAL CASE.*

BY C. S. BACON, M. D.

Professor of Obstetrics, Chicago Policlinic, and

MAXIMILIAN HERZOG, M. D.

Professor of Pathology, Chicago Policlinic.

CLINICAL HISTORY AND HISTORY OF THE SUIT.

The case to be reported in this paper is of great interest because of its clinical history, the pathological changes responsible for the accident, and the medico-legal questions involved. The pathological examination was of the utmost importance because it cleared up what would otherwise have been a very obscure case. The result of the trial emphasized again the important legal principle that the law presupposes a physician to be skillful and not negligent unless the contrary be proved.

Briefly, the case was as follows: Drs. Wight and Landon, of New Hampton, Iowa, performed the operation of curettement of the uterus on a patient, and twelve hours after the operation she died. A very incomplete portmortem examination made three days after death disclosed a perforation of the uterus. A civil suit for damages on the ground of malpractice, brought by the administrator of the estate of the deceased, was tried before a district court of Iowa, Judge Fellows presiding. After hearing the cause for the plaintiff the jury was instructed to render a verdict for the defendant.

The clinical history as furnished by Dr. Wight, the operator, and not overthrown by the relatives and friends of the patient, shows that the patient, Mrs. D., 21 years old, wife of a farmer, a strong, previously healthy, well built woman of German origin, was delivered of her first child August 12, 1897. The history of the labor and childbed is lacking except that she got up about two weeks after her confinement, and afterwards performed the usual duties

of the housewife. Dr. Y., the physician who attended her in her confinement, was, as it appears, very much interested in the suit and was generally credited with its instigation. This was because the relatives of the patient had charged him with responsibility of her illness on account of alleged negligence or want of skill shown during labor.

The friends of the patient testified that after the labor she had occasional pains in the abdomen, which did not, however, prevent her doing the work of the house, and on one or two occasions going to parties and dances. According to Dr. Wight's history she complained of a vaginal discharge, at times quite profuse, very free and prolonged hemorrhage at the time of menstruation, considerable pain in the back and especially in the abdomen. The physical examination disclosed a free leucorrhea, a large, soft, tender uterus, a cervix lacerated and patulous, admitting the finger to the internal os, and no apparent trouble with the appendages. This examination was made in February, 1898, about six months after the confinement. The patient had come a distance of 18 miles to consult Dr. Wight. He recommended hot vaginal antiseptic douches and proper medication. She returned in about one week without satisfactory improvement. He then advised a curettement, endeavoring to explain its object to the patient by suggesting that there was something unhealthy in the womb, perhaps resulting from a piece of afterbirth, which was left in the uterus at the time of confinement. The operation was performed March 2d, under chloroform anesthesia. After the usual disinfection with 1 to 5000 sublimate solution an examination was made and the cervix found so dilated that it seemed possible to introduce the finger into the uterus. The cervix was held with vulsellum forceps and a Goodell dilator introduced and opened without the expenditure of force. A large, round, dull curette about one inch in diameter was then introduced and the curetting began on the

*Read at the 49th Annual Meeting, Cairo, May 18, 1899.

right side. When the left side of the uterus was reached; very moderate force being employed, a mass about the size of the terminal phalanx of the finger or thumb was dislodged and brought away. The operator held this mass to be a piece of the placenta and probably responsible for the patient's trouble. The tissues in the neighborhood feeling soft Dr. Wight very carefully made two or three movements more with the curette and completed the operation by washing out the interior of the uterus with a pint of 1 to 5000 solution of sublimate, all of which seemed to return, and then lightly packing with iodoform gauze. The patient was put back to bed in good condition, having taken the anesthetic well. The physicians remained until she was so far recovered from the anesthesia as to be able to speak, when she complained of a little pain, for which Dr. Wight gave a hypodermic injection of morphine.

The operation was performed in the country at the home of the patient's mother, 9 miles from New Hampton. In the course of the afternoon a telephone message was sent to the doctor informing him that the patient was vomiting, but was not in special pain. Dr. Wight returned proper directions. It was brought out in the trial that the patient slept considerably for three or four hours after the operation; later she complained of some pain. At eight o'clock in the evening, about nine hours and a half after the operation, she nursed her child. The condition of the patient was apparently not considered alarming for the husband and most of the other relatives went to bed in the evening. About fifteen minutes before death the patient became much worse, had difficulty in breathing and frothed at the mouth. The symptoms rapidly grew worse and the patient died twelve hours after the operation.

The animus of the suit has been already indicated. The physician who attended the patient in her confinement, smarting under the implication of improper man-

agement of labor, the origin of which he mistakenly understood was due to Dr. Wight, instigated an inquest before a justice of the peace. Two other physicians were called, who made the postmortem examination, the results of which will be given below. The alleged finding of the perforation of the uterus led to the institution of the suit. The case came to trial May 2, 1899. According to the opening statement of the prosecution the plaintiff would prove that the operation was unnecessary; that it was done in such an unskillful manner that the injury resulted which led to the death of the patient; that because of negligence and lack of skill the injury was not recognized and properly treated; that dangerous chemicals were used; and that the patient was neglected after the operation.

In the testimony introduced nothing was said about the use of any chemicals. This charge was supposed to refer to the sublimate solution used in the injection. If the prosecution at any time had the intention to make use of this claim they had either given it up or expected to establish it by the testimony of the operator himself. It is, however, impossible to see how they ever could have succeeded in this because, first, all of the experts held that the patient died of shock. Second, the symptoms brought out were not those of sublimate poisoning. Third, the kidneys were found healthy. Moreover, the small amount of solution used in the uterus, about one pint of a 1 to 5000 solution, all of which apparently came away, made the idea untenable. The fluid found in the abdomen at the postmortem was thrown away and not examined, according to the testimony, hence this claim was necessarily abandoned.

The first claim, that the operation was unnecessary, according to the statement of the judge, was legally the most important, and the failure to establish it was the chief reason why the prosecution lost its case. They attempted to establish it: 1st, by testimony tending to belittle the importance of the symptoms for which the

patient had consulted Dr. Wight; and, 2d, by the testimony of the physicians who examined the uterus postmortem, and claimed that its condition was normal and did not indicate an operation. The fact that the patient was able to do her housework, and even attend a party in January and dance, was not inconsistent with the presence of a serious pelvic disease, as every physician must admit and as was proven to the court simply by her act in making a long journey to consult Dr. Wight. The assertions of the physicians who made the postmortem examination three days after death, that the interior of the uterus showed no pathological condition that would call for curetting, were equally valueless, 1st, because a macroscopic examination after curettement could not be expected to disclose the condition that was present before the operation; and, 2d, because it was manifestly impossible for the operator to make an ocular examination of the interior of the uterus before the operation, and hence he could only base his treatment upon the history of the case, the symptoms and such physical examination as he could make. For the latter reason even the testimony of the expert pathologist, who was called by the prosecution, had no special value or influence on the result of the suit. This expert testified that he found in specimens taken from the uterus from regions immediately adjoining those examined by one of us (Herzog) that the wall of the uterus was nearly normal, the cells staining fairly well with the hematoxylin-eosin stain. The cross examination brought out the fact that the examination had not been very thorough and that none of the more important staining agents for showing specific pathologic changes had been used. The defense had no opportunity to examine the microscopic specimens of the plaintiff's expert, but the unquestionable character of the specimens prepared by one of us (Herzog) permits us to disregard the negative results of the former. The results of our own examination had, however, no influence on the trial because, as stated above, the case was taken from the jury when the

testimony for the prosecution was ended, before any evidence was given for the defense. Hence, admitting that the testimony of the pathologic expert of the plaintiff was unimpeached and his findings correct (which, as will be seen later, they were not), it had no effect on the case for the reasons given above.

The prosecution endeavored to make a great deal of the alleged statement of Dr. Wight to the patient that a piece of retained afterbirth was the cause of the trouble and its presence the indication for the operation. As stated before, this was given as one possible cause of the trouble, simply because it could be easily understood by the patient and perhaps make the necessity for the operation more apparent. The prosecution endeavored to show by its experts not only that no evidence of afterbirth was found in the uterus after death, but also that it would be impossible for any to remain in the uterus for so long a time, six or seven months. That the plaintiff's expert's should give a positive affirmative answer to the latter proposition can be explained only on the ground that they did not have in mind the investigations of Kuestner and others on decidual polyps or decidual endometritis, nor the more recently described tumors of placental origin, the syncytiomas.

In the preparation of the case for the defense we suggested to their attorneys that they need only establish the fact that the operation was indicated, for the pathological examination showed such a condition of the uterus that a proper curettement could hardly have been made without causing a perforation. The case was even easier than we suggested; it was not necessary for the defendant to prove that the operation was indicated because it was essential for the prosecution to prove that it was not indicated. Thus was affirmed the important principle that the law presumes that the physician is the best judge of the treatment that is necessary in any given case, and that he is competent and skillful unless the contrary be proved.

The plaintiff's evidently thought to establish their second claim, that the operation was done unskillfully, by proving the fact of the perforation of the uterus. This fact was not quite established beyond doubt; one of the members of the coroner's jury testified that after the uterus was removed from the body and cut open and held to the light there was a thin place in the uterus, but not a hole. This evidence can however be disregarded as it conflicts with that of the physicians who made the postmortem examination. From their evidence it seems that after the intestines were removed from the pelvis and the uterus grasped and held up either a thin place or a hole was found in the posterior fold of the left broad ligament a short distance from the uterus. Through this place the finger was passed into the uterus. This manipulation may have actually made a hole in the peritoneum. If, however, the hole was really present the introduction of the finger was probably responsible for the fact that this opening was so much larger than that in the interior of the uterus, as will be seen by the detailed description of the removed uterus.

It certainly cannot be affirmed that the perforation of the uterus is in itself evidence of lack of ordinary skill, for the accident has not so very infrequently happened to the best operators. It is generally associated with some pathological condition of the uterine walls. Of course there is no object in curetting a perfectly healthy uterus. In this case our examination explains the cause of the perforation, but it is improper to speak of perforation in this case as the term implies a forcing or boring through the uterine wall with an instrument. Here both the history of the operation and the pathological examination shows that the hole was left in the uterine wall by the removal of the sequestrum, that had been separated by necrotic processes.

The next contention of the prosecution, that Dr. Wight should have known of the

so-called perforation and have treated it accordingly, perhaps thus preventing a fatal issue, is a very interesting point for the surgeon. Three questions are involved: 1. Should the operator have known of the hole? 2. Should he have treated it differently? 3. Would the result have been changed by a different method of treatment?

To take the last two questions first: what was the cause of death? The theory of the prosecution was that death was due to shock. In the absence of a complete post-mortem examination, especially an examination of the chest contents, the cause of death cannot be definitely known. The post-operative symptoms, however, seem to point much more to embolism of the pulmonary artery. The cause of death was certainly not hemorrhage nor sepsis. Would any other method of treatment have prevented the fatal issue? Experts for the plaintiff stated that the correct treatment would have been to open the abdomen and sew up the hole. This is a statement that is not supported by the general experience of the profession and it is difficult to see how it would in this case have controlled the shock, supposing that to have been the cause of death, or prevented the embolism. The first operation that would probably occur to most surgeons would be hysterectomy, especially in a case like this where there had been "septic" discharge for a long time and when a perforation would have led to the suspicion of malignant disease. It is not impossible that hysterectomy would have prevented the fatal result, for the embolus was very probably not dislodged into the blood stream at the time of the curettement. Yet in the absence of symptoms at the time of the operation in the case of a young married woman, it is safe to say that nine men out of ten, even if they had discovered a hole, would have done just as Dr. Wight actually did, tampon the uterus lightly and leave the case to Nature.

This discussion has, however, no bearing, because the hole was not discovered, and we must simply answer the question,

should he have known of its existence? In many books and journal articles the statement is found that perforation should always be discovered. When an instrument is pushed through the walls of the uterus into the abdominal cavity the fact is known by the depth of the penetration of the instrument or by feeling it underneath the abdominal walls. Here it is probable that the curette never passed outside of the uterus and the operator seems quite excusable for not having recognized the injury.

Concerning the last point, that the operator neglected the patient after the operation in not visiting her, the evidence was conclusive that the telephone message sent by the husband was to the effect that patient was vomiting, but was not in much pain. Vomiting after anesthesia is so common, particularly when, as in this case, the patient had, contrary to orders, eaten a breakfast, that probably no physician would regard it as a reason to make a visit.

It is very fortunate for the profession that the trial was brought since it has led to the careful examination of this rare case that would have otherwise remained a mystery. We have every reason to believe that the defendants managed the case just as every conscientious physician would have done and would again do in a similar case, and they are to be heartily commiserated at the unfortunate result of the operation. The unprofessional conduct of the colleague who instigated the suit was rightly rewarded by its complete failure.

The subject of the diagnosis and treatment of these cases of necrosis and eccentric atrophy of the uterus is extremely interesting and important. If by way of supplement we should add a word on this subject we would suggest that perhaps the cases are not so extremely rare as might be inferred from the fact that so few have been recorded. Destructive processes resulting from the postpartum growth of myxomatous villi, often leading to the perforation of the uterus, have been described, and also hemorrhagic infarcts due to lateral

embolism or thrombus, leading to characteristic necrotic changes. Likewise desiccating metritis resulting from traumatism of labor, is well known. But a deep necrosis extending nearly or quite through the uterine wall, discovered seven months postpartum, evidently associated etiologically with a chronic infective process, has not been described so far as we know. More or less necrosis of the endometrium and of the adjacent muscularis, of infective origin, is of course not rare, and has been well described by Dittrich. Whether such a condition as we have found in this case may not exist more frequently than has been suspected, and may not indeed explain some cases of perforation of the uterus, is a question worthy of consideration.

With regard to the diagnosis of such a condition as existed here we would call attention to the value of digital exploration as furnishing the surest and safest method for differential diagnosis. From the history it seems probable that it could have been employed in this case as the cervix was open. If the possibility of the occurrence of a circumscribed necrosis were kept in mind one would probably discover it with the finger and institute a satisfactory therapeutics.

With the discovery of the nature of the pathological condition hysterectomy would seem to be the operation indicated, because of the danger of any other operation and the risk of spontaneous perforation.

THE LITERATURE ON PERFORATION. PATHOLOGIC EXAMINATIONS.

Perforation of the uterus, either by sound or curette, is by no means a very rare accident. All authors reporting cases and giving a resume of their views concerning the subject are agreed unanimously upon the fact that the greatest liability to this accident exists when curettage is performed postpartum or postabortum. When curettage is made at this time the indication for it is, as a rule, the retention of placental tissue, which if it has been in utero for any length of time tends to bring about decided pathological changes.

These latter are most profound and most liable to establish conditions favoring a perforation by sound or curette when puerperal infection supervenes. The extensive investigations of Dittrich¹ made on 92 uteri postpartum, have clearly demonstrated this point and shown that in puerperal infections and others occurring after delivery the uterus becomes excessively soft, a condition which may persist for months, particularly in such cases where extensive degenerative changes are found in the muscular coat of the uterus and in the media of the uterine vessels. The necrotic tissue present favors of course a perforation which, as Dittrich states, may after the absorption of the necrotic tissue also occur later on in consequence of the thin, poorly resistant places left. The condition we then have to deal with is that of atrophy of the uterus. In considering this pathological change we are of course not concerned in the normal lactation atrophy of the uterus (hyperinvolution during lactation), from which the organ under normal conditions recovers after lactation; nor in the normal senile atrophy; nor in that brought about artificially by castration; nor in that congenital condition called hypoplasia uteri (Virchow). Atrophy of the uterus has occasionally been observed in some chronic general diseases, such as pulmonary tuberculosis, diabetes, leukaemia, chlorosis, pernicious anemia, Addison's disease, Basedow's disease, myxoedema, nephritis; also after such acute infectious diseases as scarlatina, typhoid, articular rheumatism. Of the local affections which lead to hyaline and necrotic changes of the uterine muscularis and its blood vessels and to atrophy, there is none more important than puerperal infection. Observations like those made by Dittrich (l. c.) have also been made by a number of other investigators. Ries² for instance, has examined some cases of extensive atrophy of the uterus following puerperal infection where he found absence of the mucosa, hyaline degeneration and thrombosis of vessels, degeneration and necrosis of the muscularis.

Such atrophies have also been noticed following very difficult labors and severe lesions of the uterus during parturition (Gottschalk³). Doederlein⁴ who contributes the article on "Atrophia Uteri" to Veit's *Handbuch der Gynecologie*, divides this pathological condition into two groups: The concentric atrophia in which bimanual examination reveals a very hard, small corpus uteri, which when examined with the sound measures 4 to 5 cm., and the eccentric atrophy. In the latter condition the cavity of the uterus is not reduced in size but it may on the contrary be large and roomy; the wall of the organ, however, is thin and flabby (uterus membranaceous). The consistency of the muscular coat may be so much reduced that it is difficult or impossible to find the uterus by bimanual palpation. In this class of cases the softness (marcidty) of the muscularis Doederlein states, brings with it the danger that the entering sound will not find any appreciable resistance, and will perforate the wall even if introduced with the greatest care and tenderness. The subjective symptoms of atrophy of the uterus are vague and the diagnosis, according to Doederlein, can only be made by bimanual examination and by the menstrual history. As to this latter the author named says that atrophia uteri (the statement refers to both varieties) is accompanied by scanty menstruation or amenorrhea. This latter statement, however, cannot be accepted unqualifiedly, because in the case to be reported in this paper, which belongs to the eccentric variety, there was present a decidedly increased, long continued menstrual flow. This condition may perhaps be the rule in the early stages of eccentric atrophy.

It is of course particularly the eccentric variety of uterine atrophy, in which in consequence of its intrinsic nature, perforation of the wall by the sound or curette may easily occur and has quite often occurred. A search of the literature on perforation of the uterus shows that in very few cases has there been made a thorough microscopic examination and the minute

morbid condition can in most cases be inferred only from the clinical data given.

Sir James Y. Simpson himself must have seen cases of uterine perforations by the sound, because he lays stress upon the fact that one should be mindful of the occurrence of this accident in the use of this instrument. Already a few years (in 1854) after the introduction of Recamier's curette, Richard (quoted from Pichervin, see below) reports a case where a uterus had been perforated by a curette used "*facilement et avec grand douceur*," and states that this accident has already occurred several times. Dupuy⁵ in 1873, was able to tabulate 17 cases of perforation of the uterus with the sound. In none of these 17 cases, however, did the accident prove fatal. Haynes⁶ twice perforated the uterus with the curette. Both cases recovered, as well as the third case quoted by this author which Hofman reported to the Philadelphia Obstetrical Society, April 3, 1890. In both of Haynes cases, the uterus was very soft; in one of the cases there existed an endometritis fungosa. Lanelongue⁷ twice encountered the accident, once followed by death. In Lanelongue's fatal case the curettage was made in a woman 34 years old, IV para, for endometritis. Lanelongue did not notice any special incident or accident during the operation of scraping, but when after it he injected a sublimate solution he noticed that the fluid did not return. He now suspected a perforation, cleaned out the cavity well and amputated the cervix. During the night after the operation the patient vomited frequently and on the next day a stomatitis, diarrhoea and albuminuria developed. On the nineteenth day after the accident the patient died. The autopsy showed a uterine cavity full of pus, a perforation in the right upper corner of the fundus, and an accumulation of pus in the peritoneum. The other organs, including the kidneys, were found healthy. This patient, therefore, recovered from the effects of a transitory corrosive sublimate poisoning, which left

no permanent traces (normal kidneys), but succumbed to the septic peritonitis. When Lanelongue read his paper on his cases to the Bordeaux Obstetrical Society, Riviere reported a case of fatal uterine perforation in an attempt at criminal abortion. Auvard⁸ says that in 270 curettements, made at his clinic during the years 1890 to 1894, he had one non-fatal perforation. He states as the result of his experience: "It is, however, not the curette, but the dilator one uses first which produces the perforation." Zinke⁹ reports that in curetting he perforated the uterus on three occasions. All three patients recovered. Alberti¹⁰ saw a case in which the uterus was perforated in a curettement which was made some time after a suspected abortion. When an attempt was made to remove the curetted masses from the cavity a loop of small intestine was pulled out of the uterus. Alberti operated, found and repaired the perforation and his patient recovered. The author states that at the place where he found the perforation the muscularis was extremely soft and flabby, and so thin that when he tried to suture it the sutures tore through the tissues and he finally used four Lembert sutures and the assistance of a fold of broad ligament to close the rent, which was 4 cm. long. Another point which Alberti mentions is that the tissue where the tear occurred must have been very poorly vascularized because there had not been any hemorrhage from the tear. When Alberti reported his case to the Berlin Society for Obstetrics and Gynecology, Veit, Guserow, Orthmann, Olshausen and Martin each reported a similar case. Four of these latter cases terminated fatally. Pichevin¹¹ in an article on the accidents during curettement, attributes to the curette and not to the dilator the perforation, and says that the latter usually occurs in the neighborhood of the tubal angle where inflammatory changes are so frequently found. The greatest danger of perforation, Pichevin thinks, is the fact that it is sometimes overlooked and followed by

a copious uterine injection whereby grave and fatal accidents may be brought about. Pichevin quotes a case of this kind published by Bonvalot (These de Paris, 1892), also four cases published by Raffray (These de Paris, 1893) one of which likewise took a fatal issue. Lawson Tait¹² once perforated the uterus with the sound, without any bad consequences. Dumont¹³ reports three recovering cases of perforation by the curette. Dreising¹⁴ describes a fatal case of scraping post-abortion. Flandrin¹⁵ gives an account of two examples where the womb was perforated by the sound. Mann¹⁶ reports three cases of perforation of the uterus after abortion, with prolapse of the intestine. Two of these cases terminated fatally. Mann, also, himself once perforated the uterus with a Goodell dilator. Hickman¹⁷ once produced a perforation by the introduction into the uterine cavity of a uterine douche tube. He noticed how excessively soft the uterine wall was in his case. Courant¹⁸ while examining an intraligamentous myoma perforated a uterus first with the sound and then with the curette. Glaser¹⁹ with a sound several times perforated the uterus of a woman who had been delivered three months previously. The uterus was then removed by vaginal extirpation and the author describes the organ as follows: Uterus not large, walls not thickened, fundus as soft as grease, cervix somewhat more resistant. When, after the removal of the uterus, the sound is allowed to stand upon the fundus the instrument by its own weight perforates the wall. Odebrecht²⁰ reports the following case: He perforated by the sound the uterus of a woman 29 years old, five weeks after an abortion. When, after a laparotomy, he tried to close the perforation and to fix the uterus to the abdominal wall the sutures tore through the uterine substance and the operation could only be finished by passing the sutures through the adnexa. At the meeting of the Munich Society for Obstetrics and Gynecology, held November 18, 1897,²¹ cases of perforation of the ute-

rus were reported by Krecke, Wertheim and Theilhaber. That perforation of the uterus may sometimes occur under what one should consider very unfavorable circumstances and still not lead to any directly dangerous consequences, is proven by a case published by Henrotin²² who reports that a woman about seven weeks pregnant, in order to bring about an abortion, introduced a sharp instrument. It was later on shown by a celiotomy which became necessary, the 4th or 5th month of gestation, that the woman had perforated the fundus, the ovum escaping through the opening made, the placenta, however, remaining attached partly inside of the uterine cavity, partly attaching itself to the outside of the fundus and the neighboring structures. The only case of perforation where a full microscopical examination has been made after the accident took place, has been reported quite recently by Kentmann.²³ The perforation by the sound occurred in a woman 40 years old. The accident was noticed, and since malignancy was suspected the uterus was at once removed by vaginal hysterectomy. The microscopical examination of the uterine wall showed that the muscle bundles were alternating with interstices often broader than the muscle tissue itself. The interstices were filled out with a coagulated transudate. The muscle fibres themselves showed degenerative changes, the vessels thickening of the adventitia and other abnormalities. The whole picture was that of a myometritis oedematosa.

The above collection of cases quoted from the literature shows that accident of perforating the uterus by sound or curette has been reported quite a number of times and has in several of these instances lead to a fatal issue. The list is probably not a complete one. Even if all cases reported were collected without any omission whatsoever it would then also represent an incomplete record only, because many cases, perhaps most cases, are not reported at all. As Raffray (l. c.) somewhat facetiously says, "Nulle doute que les faits de ce genre soient plus fre-

quents qu'on ne le pense, mais comme on le comprend les auteurs n'ont nulle envie de se faire connaître." There are probably also cases in which fatal complications followed a curettement where the perforation was never noticed or suspected. Perhaps in the two cases reported by Jackson²⁴ in which, after a curettement a fatal peritonitis developed the cause of the latter may have been perforation of the uterus.

During the trial of the case testimony was given to the effect that three days after the death of the patient a postmortem was held on the well preserved body.

This examination was made between the hours of 10 and 11 P. M. in a room lighted poorly by a coal oil lamp. The physician who in the presence of two other doctors held the postmortem, opened the abdomen by a longitudinal section between the lower end of the sternum and the symphysis pubis, and a transverse section in the middle of the former. It was stated at the trial that there was noticed on opening the abdomen a purplish discoloration of a loop of intestine, a small amount of serous fluid tinged with blood in the abdominal cavity proper and a small amount of whitish, probably purulent, fluid in the pelvic cavity around the lower part of the uterus. It was further stated that there was seen on the left side of the uterus a perforation. After the physician who made the postmortem had pressed with his finger through the place where he thought he noticed the perforation, the uterus was removed and then opened by a longitudinal incision in the middle of the anterior wall. It was also stated that the kidneys had been removed and found to be normal. The examination was not extended any further. Particularly was there no examination made of the thoracic cavity. According to testimony of the experts for plaintiff the uterus, soon after having been removed, was placed in strong alcohol and left there until one of us (Herzog) by order of the court, in January, 1899, i. e., about nine months after the postmortem, had a chance

to make an examination of it. The result of this examination was as follows:

MACROSCOPIC EXAMINATION OF THE SPECIMEN.

The uterus and its appendages have been severed below the os externum of the cervix; the section has been made through the upper part of the vaginal walls. The separation of the appendages from their connections with the surrounding tissues has evidently not been done with great care, since the appendages are not intact, but more or less mutilated. The uterus had been laid open by an incision into the median vertical line of the anterior wall. The cut starts in the fundus and goes through the entire body and cervix.

The measurements of the uterus are as follows: Length from the os externum to the top of the fundus $6\frac{1}{2}$ cm. ($2\frac{3}{4}$ inches). Breadth between attachments of Fallopian tubes, 6 cm. ($2\frac{1}{2}$ inches). Thickness from before backward in region of middle of body, 3 cm. ($1\frac{1}{4}$ inches). Thickness of uterine wall at corpus, below fundus, 12 mm. ($\frac{1}{2}$ inch). Thickness of wall at ostium internum of cervix, 7 mm. ($\frac{1}{4}$ to $\frac{1}{3}$ inch). There presents itself in the corporeal uterine cavity at and near the fundus a tissue which looks spongy and soft, somewhat like softened (macerated) mucous membrane. This tissue at the fundus appears to have a thickness of about 6 mm. ($\frac{1}{4}$ inch), it thins out gradually towards the cervix and towards the left of the uterine cavity, where the anterior and the posterior walls of the body meet. The tissue just described has an uneven surface and the surface irregularities increase towards the os internum and particularly towards the left side. Here in the lateral fold or recess formed by the junction of the anterior and posterior uterine walls the internal surface is especially uneven and there are formed bridges and ridges of projecting tissue. On the right side of the corporeal cavity the surface is, on the contrary, even and smooth. On the fold of the left side, where the internal corporeal surface pre-

sents the irregular, uneven appearance described, there is seen a perforation or opening which is located about $1\frac{1}{2}$ cm. ($\frac{3}{4}$ inch) below the left ostium tubæ, and which is large enough to easily admit a thick lead pencil or the tip of the small finger. The perforation takes an almost horizontal (horizontal with reference to the erect body) direction outward (towards the left side of the body) and backward, goes between the two folds of the left broad ligament and makes its exit through the posterior fold of the broad ligament where this is attached to the posterior wall of the uterus. This place of exit of the perforation is situated about 4 cm. ($1\frac{3}{4}$ inches) from the top of the fundus. The slit produced by the exit out of the broad ligament extends laterally towards the ampulla tubæ. Length of slit $3\frac{1}{2}$ cm. ($1\frac{1}{2}$ inches). The muscular substance of the uterus, in spite of the fact that the organ has been in 95% alcohol for several months, is soft and flabby, particularly on the left side. The left Fallopian tube is over 10 cm. (4 inches) long, the fimbriated extremity is torn and incomplete. Most of the left ovary is missing and what remains is torn and mutilated. On the right side most of the Fallopian tube and of the ovary have been torn away. There is found in the cervix what appears to be an old healed tear. The peritoneal coat of the uterus, as well as the surface of the folds of the broad ligaments, are smooth. No fibrinous or fibrous deposits or adhesions can be seen with the naked eye.

For

MICROSCOPIC EXAMINATION

the following pieces were taken:

1. From the cervix at the place where there appeared to be an old healed tear.
2. From the inner surface of the corpus below the fundus.
3. From the periphery of the perforation taking in all the tissues from the internal corporeal surface to the peritoneal covering. The smooth pieces taken for microscopic examination were embedded

in paraffin, sectioned and stained according to various methods (Van Giesen, Weigert's fibrin stain, Weigert's stain for elastic fibres, etc.).

The examination of the piece of tissue taken from the cervix and supposed to come from a place where there had been a rent or laceration, shows that this supposition was correct. The free surface was lined by a single row of columnar epithelium which is quite short and of the type of the epithelium lining the body cavity. A basement membrane cannot be demonstrated but the epithelial cells rest, as it appears, directly upon a tissue composed of fusiform fibrillar connective tissue well provided with sharp cut, fusiform or oval nuclei. A very moderate number of small round cells are also found distributed in this connective tissue, which is well provided with blood vessels, which are, however, completely empty in the sections examined. There are no glands or any remnants of them in this tissue.

Next to the tissue described follows the quite well provided with sharp cut, fusiform or oval nuclei. A very moderate number of fibres are mixed with connective tissue, but the mutual portion of these elements appears to be that which is normally found in the cervix. The muscularis of the cervix shows thick walled blood vessels. The vascular endothelium is fairly well preserved in many places, the muscularis of the vessels shows distinct clear cut muscle cells; the connective tissue coat of the vessels does not seem to be increased in thickness. The muscle cells of the cervix are clear cut and of the type of normal muscle cells in a non-pregnant respectively completely involuted uterus. The upper margin of the sections, i. e., that part which was nearest to the body and probably already belonged to the corporeal and not to the cervical muscularis shows decided degenerative changes. The muscle fibres have lost their nuclei, they are in a condition of hyaline degeneration. They either take the eosin stain only, or take the nuclear stain diffusely.

Sections from the piece of tissue taken from the inner surface of the corpus below the fundus do not show any trace of a normal mucous membrane. The tissue next to the cavity shows an irregular fringed surface, as if it might have recently been curetted. This tissue is made up of coarser and finer loosely arranged wavy fibres, the interstices between which are filled out with a granular cell detritus. Between these elements there are seen round and oval openings. These are the lumina of completely degenerated blood vessels, in some of which corpuscular elements may still be recognized. Next to the tissue just described, i. e., the remnant of a completely degenerated corporeal mucous membrane in which every trace of granular elements are absent, there are found muscle fibres showing evidence of degenerative changes, indistinct nuclei, complete absence of nuclei. The layer of muscle fibres so changed is only thin and in the rest of the muscularis, as far as removed, the muscle fibres are normal. They inclose what in the sections appear as roundish or oval masses of a hyaline material with fusiform cells. These masses are best compared to the not too old corpora fibrosa or albicantia of the ovary. They are the changed products of organized thrombi. In some places those organized thrombi have become vascularized and one sees in the middle of the hyaline masses one or two newly formed vessels. In other parts of the section the organized thrombus is of a younger type and the tissue closing the former vessel lumen is not a hyaline mass, but consists of fusiform cells (fibroblasts). All these conditions can be beautifully studied by the aid of Weigert's new stain for elastic fibres, which for such purposes cannot be too highly recommended.

Sections from the triangular piece of tissue taken from the site of the perforation do not contain a single intact, healthy cell. Everything is in a state of degeneration. Not a single clear cut nucleus can be seen. The tissue has generally taken the eosin stain and here and there the

nuclear stain diffusely. There are large openings in this tissue which are, as proven by the elastic fiber stain, lumina of large vessels, their walls are in a complete stage of hyaline degeneration and even necrosis. The tissue next to the very point where the perforation in the uterus was found, the degeneration was most complete. The inner layer at this place is composed of a mass of fine, loosely interwoven fibers (fibrin, as demonstrated by Weigert's fibrin stain) with granular detritus. The outer layer from the arrangement of its elastic fibers can be recognized as the peritoneal coat of the uterus. Peritoneal endothelium cannot be demonstrated.

EPICRISIS.

From the history of the case, and particularly from the result of the histologic examination, the following conclusions can be drawn:

Mrs. D., at the time she was confined, in August, 1896, had a hard labor and there occurred during it a laceration of the cervix. There also occurred in the puerperal state a severe infection which led to profound inflammatory changes in the uterus. These were accompanied respectively followed by necrotic processes in the uterine mucous membrane, degenerative processes in the muscularis, extensive thromboses of vessels. At the area where the perforation was found, i. e., near the tubal angle, the changes in consequence of inflammation, vascular degeneration and malnutrition were most marked. There was probably here formed a necrotic sequestrum which was removed at the moment the curette passed over the spot.

In the absence of a complete systematic postmortem it is difficult to form an absolute opinion as to the cause of death. What appears very probable is that she died in consequence of an embolism of the pulmonary artery. In curetting a uterus in a condition like the one under discussion it is certainly very possible that a thrombus in one of the diseased vessels may be loosened, taken up by the circulation and carried into the heart or pulmonary artery.

LITERATURE.

(1) Dittrich: Das Verhalten des puerperalen Uterus unter Pathologischen Verhältnissen. Archiv. f. Heilkunde, vol. 10, p. 15.

(2) Ries: Ueber die Atrophie des Uterus nach puerperaler Erkrankung, Zeitschr. f. Geburtsh. u. Gyn., vol. 27, p. 1.

(3) Gottschalk: Beitrag zur Lehre von der Atrophia uteri. Sammlung klin. Vortraege N. F., 1892, No. 49.

(4) Doederlein: Veits Handbuch der Gynec. Wiesbaden, 1897, vol. II., p. 391. (This article contains a full list of the literature of atrophia uteri).

(5) Dupuy: De la perforation des parois uterines par l'hysterometra. Progres Medical, 1873; also, the same author: De la perforation des parois uterines par la curette. Progres medical, 1894, p. 36.

(6) Haynes: Two Cases in which the Uterus was Perforated by a Curette. Am. Journ. of Obstet., 1890, vol. 23, p. 1193.

(7) Lanelongue: Deux cas de perforation uterine pendant l'operation de curettage. Archives de Tocologie et le Gyn. 1892, vol. 19, p. 395-475.

(8) Auvard: Curage et Perforation Uterine. Arch. de Tocologie et de Gyn. 1894, vol. 21, p. 581.

(9) Zinke: Transact. Obstet. Soc. Cincinnati, O. Am. Journ. Obstetrics, 1894, vol. 29, p. 518.

(10) Alberti: Ein Fall von Perforation des Uterus beim Curettement, etc. Centralbl. f. Gyn. 1894, p. 937.

(11) Pichevin: Des accidents causes par le curage uterin. Annales de Gynec. vol. 43, p. 397. 1895-I.

(12) Lawson Tait: De la perforation uterine par l'hysterometre ou la curette. Arch. de Tocologie et de Gyn. 1895, vol. 22, p. 645.

(13) Dumont: Dangers et complications de curettage post partum. Arch. de Tocol., 1895, vol. 22, p. 161.

(14) Dreising: Ueber Verletzung des Uterus. Inaug. Diss. Berlin, 1894.

(15) Flandrin: De la perforation de l'Uterus par la sonde. These de Paris, 1895.

(16) Mann: Perforation of the Uterus after Abortion with prolapse of Intestine. Am. Journ. Obstetrics, 1895, vol. 31, p. 603.

(17) Hickman: Notes Upon a Case of Perforation of the Uterus during Curettage. Med. News, 1895, vol. 46, p. 242.

(18) Courant: Zur instrumentellen Perforation des Uterus. Centralbl. f. Gyn., 1897, p. 1411.

(19) Glaeser: Zur Uterus perforation, etc. Centralblatt f. Gyn., 1898, p. 139.

(20) Odebrecht: Bemerkungen, etc. Centralbl. f. Gyn., 1879, p. 1442.

(21) Monatsschrift f. Geburtshilfe und Gynecologie, 1898, vol. 8, p. 419.

(22) Henrotin: Ectopic Gestation in Jewett's Practice of Obstetrics. Philad. 1899, p. 386.

(23) Kentmann: Myometritis oedemato-

sum und Sondenperforation. Monatsschr. f. Geburtsh. u. Gyn., 1898, vol. 8, p. 333.

(24) Jackson: Report of Two Cases of Death following Curettement of the Uterus. Annals of Gynecology, Boston, 1887-1888, vol. I, p. 311.

A SOCIOLOGICAL VIEW OF CRIMINAL ABORTION.*

BY W. J. FERNALD, M. D., RANTOUL.

If the query has arisen in the mind of any on reading the title of this paper, "What have we to do with a question of Sociology?" the answer may be found a greater or less number of times I have no doubt in the professional experience of every one who listens. For every high minded practitioner of medicine who has sworn with himself an inviolable oath to stand fast by his duty to relieve suffering and postpone death; who has resolved with unapproachable resolution that if honest effort along legitimate lines will not procure him success, he will quit the profession rather than prostitute his attainments to the destruction of life it is his duty to save, has had rankle in his bosom the unspeakable insult, personal to himself as well as his profession, conveyed in every request for the commission of a criminal abortion.

And in the fact that these requests are invariably preferred with the most unblushing effrontery, as though crime, both legal and moral, was a purchasable commodity easily procurable on a cash basis from the nearest physician, we realize the immensity of the stain put upon the noblest profession but one by a few conscienceless lepers that infest its ranks. In this phase of the subject each physician has a personal interest. For the stigma placed by the few on the profession casts its shadow over the individual physician; and through that the public has come to believe that however upright a physician's life may otherwise be, this one crime may be proposed to him and meet no adequate resentment. And it must be acknowl-

*Read at the Aesculapian Society, Paris, III., Oct. 26, 1899.

edged that though this blight has fallen on the profession through the baseness of the few, it remains there largely through the indifference of the many who, though refusing to do the deed, couch their refusal in such politic terms to save perchance a rich patient, that any insult that may be felt is hidden completely from view. But important as is the relation of this social tendency to get rid of the products of conception to the profession, it has a deeper significance by far to the student of social conditions in its relation to society at large. For he who looks at this question from the highest standpoint can see as its only result not only individual destruction, but social destruction as well, whose deadliness is in direct ratio to its prevalence.

Briefly stated, a society is a collection of individuals the size of which is finally determined by its environment, organized for the ultimate purpose of securing to the individual the highest measure of personal liberty compatible with the rights of his fellow man; and also that the greatest measure of good may be secured by him with the minimum of effort. The largest type of this organization is an integral nation; but the organization and purpose of it are repeated wherever and whenever a limited number of men within the larger organization, band together in a common purpose to secure a predetermined end. The activities superinduced by personal and social needs leads to the obscuration of the ultimate principal upon which society is organized or becomes possible; and we come to regard objects desirable as of higher importance than the fundamental sociological order without which these ends were impossible. And this is true because the fundamentals of life, whether inorganic, organic or superorganic, are largely automatic; they need no attention. But, for extraneous things effort is required; and these, with the efforts to obtain them, fill the mind to the exclusion of those functions which go on automatically.

Therefore, though the sociological needs and the methods of their attainment, as by government, law, education, etc., fill the

mind to the exclusion of things primarily more important though automatic in a sense, we must not forget that these automatic fundamental principals exist.

The unit upon which society and the state is based is the home. All sociological and political structures designed or evolved for the advantage of the individual have this unit for their base. And the evolution of these structures from savagery to civilization has been coincident with the evolution of the family.

As the evolution of the family has proceeded through the stages of promiscuity of intercourse, polyandry, polygamy to monogamy, so the evolution of societies has proceeded through all stages from small and isolated tribes of savages loosely bound together, to the present wide spread peoples whose governments are animated by high and noble purposes. If it be argued that the same claim might be substantiated with regard to religion it suffices to remember that until recently, at least, the marriage rite was strictly religious in character. The family was born of the church. Whether it should not have remained so is a debatable question. For there is good reason to believe that many of the evils that now afflict society follow from making marriage a civil contract instead of a religious vow.

As the foundation of the state is found in the family, so the foundation of the family exists in the biological structure of the race. For while we commonly consider a man or a woman as a biological unit, a moment's consideration will show it to be true only in a limited sense. Neither is perfect. Each finds a reciprocal correlation in the other; and only when the two are joined together does every relation find its correlative. And the link that draws the two imperfect units together in the family relation; that principle upon which in the ultimate analysis the home is founded, is that transcendent passion which has been incapable of suppression in the individual by any power save the highest moral ideal, reinforced by the sacred precepts of religion, from

the beginning of time 'till now; the passion we know as sexual intercourse. And that all these reinforcements to virtue may fail in the hour of great temptation we too often see in the carnal fall of those who have as a matter of religion taken the vows of celibacy.

If the naked statement that the home is founded ultimately on an animal passion seems at first thought offensive, we have only to examine it a little to find a refuge from the offence in the truth of it. Then after recognizing the truth we may cover it over with conventional flowers, not forgetting the truth which conventionality hides. The truth of the above position is at once established when we remember that society can have no more important duty than to perpetuate itself by reproducing at least enough members to replace those lost by death or otherwise. If this be not done all other sociological objects disappear with the disappearance of the society. If this were not enough to establish the truth above set forth, but socially ignored we find additional proof in our every day language. Every one knows that kindness, honesty and truthfulness are virtues highly to be praised in a woman. But when the virtue of any woman is denied no thought is given to failure of these. Every listener instinctively knows what is meant.

Men and women may prostitute their intellectual powers to base ends. But it requires an adjective qualification to indicate this kind of prostitution. For prostitution unqualified has an unequivocal meaning, and relates to only one thing.

Granting then that this which the French call the "one grand passion" forms the ultimate base of all social structures, does that fact need an apologist? I think not. That passion which, through marriage, has been sanctified through time by the stainless innocence of babyhood; that passion, the flower of which poet, artist and romancist have tried in vain through all these years to tell the story of; which has filled the earth with lullabys; transformed bare walls into

homes and made home a heaven; peopled it with baby forms more beautiful than seraphs; whose innocent prattle over childhood joys is music sweeter far than the tenderest chords that shall yet be struck by angel hands from golden strings around the great white throne; that passion that has given to language its sweetest word—mother; has transfigured each woman crowned with maternal joy into a real Madonna, kindling in her face a light as radiantly beautiful as the halo that shone round the head of Mary as she bore the Christ child on her enraptured bosom; that passion needs no apology from us who mention it, nor from you who listen.

This animal passion lying then as it does at the foundation of society, being the ordinance by which society perpetuates itself, is of supreme importance and is, as is everything else, the outgrowth of the constitution of things. And whether we rest our theory of things upon revelation, the express declaration of which is that man was created out of dust of the ground; or whether we believe with modern philosophers that organic life is evolved from inorganic life, while super-organic phenomena, are products of the same law; and that every existant thing is but incarnation in the dust of the earth of an eternal and unknowable power, we are compelled to admit the fact that whatever it may be on its obverse side, on the one known side each phenomenon is physical and under the dominion of physical law. So then from either point of view this passion through which the sexes are united, while it is on the one side ethical and moral, is on the other side physical and governed by the law of the physical.

What then do we find to be the one thing characterizing these physical laws? No other thing can be said of them more necessary to be learned than this: that they are immutable, and that no one can violate even the least of them without paying the penalty. And that penalty is physical death either partial or complete. For the most startling fact in all the world to him who thinks is this: that Nature by the

inviolable constitution of things is just even to death; that that judgement is not postponed but is written here and now in the constitution of him who violates the law.

Emmerson has expressed the truth I would emphasize in words more splendid than any I can frame when he says: "The ingenuity of man has always been dedicated to the solution of one problem, how to detach the sensual sweet, the sensual strong, the sensual bright, from the moral sweet, the moral deep, the moral fair; that is, again, to contrive to cut clean off this upper surface so thin as to leave it bottomless; to get one end without the other end. The soul says Eat. The body would feast. The soul says: The man and woman shall be one flesh and one soul. The body would join the flesh only. * * * *

This dividing and detaching is steadily concentered. Up to this day, it must be owned no projector has had the smallest success. * * *

We can no more halve things and get the sensual good by itself than we can get an inside that shall have no outside.

* * * Life invests itself with inevitable conditions which the unwise seek to dodge, which one and another brags that he does not know; that they do not touch him; but the brag is on his lips, the conditions are in his soul. If he escapes them in one part, they attack him in another more vital part. If he has escaped them in form and in the appearance, it is because he has resisted his life, and the retribution is so much death."

That this is a practical as well as a theoretical truth all history shows. We recognize the fact the law of absorption of nutritious materials is an essential of physiological existence. We know that materials absorbed may be life giving or life saving in one condition of health, though destructive under other conditions. Other absorbable materials produce an exaltation of the powers of life for a time. And many there are who having felt this temporary exaltation and dreamed the dreams that come of it, take stimulants again and

again to their eventual destruction. For no man heightens his life by artificial means except he shorten it.

DeQuincy's name is probably imperishable. But his fame rests on the airy frame work of opium dreams, the main-spring of which brought him an early and miserable death.

Poe's Raven might aptly be said to be the fixation in splendid verse of the wild vagaries of an alcoholic delirium.

Byron of the furious soul, burned the moorings of his spirit from the clay that held it with alcoholic fires and died at 33.

Burns, who enshrined the beauty of Scottish life and Scottish scenes in matchless music, and crowned with the splendor of his imagination the Daisy and the Mouse of his native hills, paid the penalty of a life that was at once swift, high and deep in an early death.

If then the violation of these laws which are physical on the one side, and ethical and moral on the other, produce a destruction as inevitable as it is fatal when that violation and its effects are confined to the individual; if there is no place in all the earth so secret that in it may the individual violate law and escape the penalty; if indeed the irrevocable judgement of death, partial or complete is written by the individual in his own being by that act of violation; so also two individuals may not league together to violate a law of their being and escape the penalty. If that law concerns the individuals alone the penalty of its violation is registered in the individual alone save as it involves succeeding generations through heredity. But if the violation concerns a law not fundamental to the individual alone but fundamental to the family and society at large as well, we may expect to find the judgement of destruction registered in the individual, the family and society at large.

That the crime of abortion is an attempt, startlingly frequent, at evading the legitimate physiological and sociological result of sexual intercourse will not be denied. And so frequent are these attempts that their commonness leads super-

ficial observers to consider abortion as a distinct sociological disease. But a careful consideration of the matter will convince the most thoughtless observer that instead of being a distinct sociological disease it is only a symptom made frequently known by reason of the fact that it bears such violent physical disturbances directly in its wake that it cannot be concealed. And that the real social disorder, of which this is only one of many symptoms, is the determination of multitudes of men and women to have the physical pleasure of married life without fulfilling its physical, sociological and moral responsibilities. The real trouble is that either small families are desired, or that none at all are wanted. While the burning desire of majority of newly married couples seems to be not to have a family grow around them in the early stages of married life. Out of this desire springs not alone abortion after conception has occurred, with its manifold physical ills, but multitudinous methods of preventing conception are adopted, each of which is followed by its peculiar type of destruction; and followed none the less certainly because judgment of destruction may be apparently postponed; or because through concealment of the cause the fatal event may be, and often is, ascribed to other causes.

The real social disease then, being the desire for small families, dealing as it does not with the individual alone, but through them with the family, society and the state, we may expect to see its diabolical effects in the individual, the family, society and the state.

That we can trace its effects in each of these directions no thoughtful man will attempt to gainsay. And if you will pardon the plainness of speech necessary in discussing this subject I will attempt to follow briefly the symptomatology of this which Bishop Potter, in the current number of the *North American Review*, calls the "Unnamable Vice, which is Sapping the Vitality of American Society."

As to the individual every physician understands perfectly that a healthy per-

son is one possessed of healthy organs regularly discharging their function in a normal and unobstructed manner. And each one knows that an organ persistently obstructed in the discharge of its function undergoes a degenerative change in direct ratio to the degree of obstruction. As the health of the organism depends upon the health of the component organs, the function of none can be lost or diminished without detriment to the whole. The function of the generative organs normally discharged without obstruction results in the deposition of the male element at all times in a position favorable to fecundation; and when certain physiological processes have been completed in the female, the male and female elements meet at a place favorable to conception. Now the continued health of these organs, as of all others, is dependent upon the normal and unobstructed discharge of their function. And no effort to avoid conception by the use of physical obstructions to the union of the two elements can be devised that do not materially interfere with the normal discharge of that function. And I believe that none of these methods may be so carefully employed as to insure absolute success for a great length of time without producing some degree of impotence in the male, sterility in the female, or both.

That quiescence of this function is not inimical to health is theoretically true. But that health practically depends indirectly on the normal discharge of it is shown by the frequency in the unmarried of both sexes of self abuse, of venereal diseases, and in unmarried women of criminal abortion.

If conception has occurred and abortion be determined upon, physical destruction more swift, but not more sure, follows. Sepsis due to ignorance of the lay operator, and carelessness of the professional abortionist, produce speedy death in many cases and chronic diseases in multitudes of others. Nor can the normal processes set in motion by conception be suddenly and violently arrested without serious physical and mental disturbance. And the fre-

quency with which married women who have aborted, or have failed of conception through efforts to prevent it, fall into the hands of the gynæcologist has builded the specialty of gynæcology to its present colossal proportions, and made the gynæcologist to flourish as a green bay tree.

If the physical dangers to the individual are many and sure, the dangers to the home life are fully as numerous and equally certain. For there is no more significant myth than that of the blind god with the bow and arrows; a shaft from whose quiver brings men and women to the hymeneal altar. His name—Cupid—means desire; and the form he bears—that of a winged babe—types the object of the desire of one or both of the vast majority of those who are married. And if after marriage, the knowledge of the dangers attending abortion leads to the abandonment of intercourse entirely as a means of limiting the size of the family, the plan to be successful and not disrupt the family would have to be completely acquiesced in by both husband and wife—a very rare possibility to say the least. For the demand of every organ is the discharge of its function. And if either did not agree fully with the plan, that one feeling the injustice of it, would be tempted to seek satisfaction where satisfaction might be obtained as a commercial commodity. Or fearing the penalty placed upon this, in the shape of venereal ruin, would indulge in the secret vice either alone or together, thus postponing immediate destruction to its remoter form in a mad house. Such cases are known to be not infrequent.

If the attempt to limit the size of the family be confined to the first few years of married life it not infrequently happens that through impotence, sterility, or the formation of the habit of abortion in the woman, a family becomes an impossibility. Then when children are desired and are found to be forever impossible, the salvation of that home to happiness becomes an impossibility. A childless home may be endured by those who desire children when the inability to procreate is believed to be

natural. But when one or both know or believe that sexual inability has for its foundation deliberate sexual crimes, an unspeakable repugnance is the result. Then they learn through the vivid medium of personal illustration in their ever present physical decay that intercourse between husband and wife unaccompanied by the willingness to bear the legitimate consequences of it is but little removed if any from concubinage concealed under the form of marriage, a socially condoned form of prostitution. Jealousy arises and with just cause in many cases. And that home life which in its purity is the earthly type of heaven becomes a foretaste of perdition.

That the above brief outline of evils is not imaginary I know. For in my own brief professional life I have seen, and could detail for you, had I time, examples of the unspeakable evils brought about exactly along the lines above laid down. Each one who told the story of his ruin bitterly repented his folly when for the restoration for his lost happiness the bitterest repentance possible to an anguished soul must be forever in vain.

If it is true that the product of this social leprosy is inevitable destruction in the individual and in the home life is it true in that wider social life comprehended in the State? A moment's consideration will show that it cannot be otherwise. For moral degeneration of all kinds follows directly in its wake and is in direct proportion to the prevalence of it. It needs no argument to establish the truth of the statement that any man or woman who can be prevailed upon to commit the highest of crimes can also be prevailed upon to commit any minor crime. Accepting as the moral definition of murder that it is the putting an end to human life, abortion is murder in its moral sense. For dead materials cannot remain in the uterus and develop. And that which is not dead has life. Whoever puts an end to this life or permits it to be done by passive participation, is a murderer; and adds to this blackest crime in the calendar a deeper stain still—that of the rankest cowardice

in the helplessness of the victim. The man or woman who can do this can be induced to any other moral or legal infraction if the price be made sufficiently high and freedom from detection be reasonably certain.

If a concrete illustration of the social destruction brought about by the causes above set forth is needed, we have it in the Republic of France. There these causes and efforts are epitomized. It is known that the population of France is stationary. Only as many are born as die. And though this physical passion is unrestrained in France its legitimate physiological result is escaped through the ingenuity of that people in avoiding conception and in aborting it after its occurrence. As a result a Nation whose language has no word for home is most destitute of homes. The powers of the State strive to promote marriage and offer rewards for large families in vain. Taxation of bachelors is equally fruitless. In a land where the sign of a woman's shame in the shape of a babe can be successfully avoided the shame itself is finally lost. Prostitution becomes a fine art. To be a mistress is a privilege, while a man by the regulation of high society loses caste only when he has two mistresses instead of one. That there are many happy homes and virtuous women in France no one denies. But that gross sexual immorality exists there also to the degeneration of society cannot be denied. For contrast, turn to Germany with its progressive people; where large families and happy homes are the rule. Granting that the above is all true, and I have not consciously overstated the facts, what are we to do about it? you may ask. That something should be done, I think none will deny. For I have seen it stated that the efforts at limiting the number of children born to native Americans is so successful that were it not for the number of immigrants coming to our shores, and who have large families after coming here, our population would be almost at a standstill also. The lessened sanctity of the marriage vow, and the

multiplication of divorce suits based upon charges of infidelity are indications of the spread of this social evil too startlingly vivid to be ignored. That the evil tendency of the times is also shown in the relaxation of the social ban placed upon those whose unchastity is known, I believe history shows. For in Puritan days, as Hawthorne tells us, the mark of the Scarlet Letter was placed upon the fallen woman when she was not condemned to death. And though as Hester Prynne stood on the pillory, wearing the emblem on her breast, she bore on her bosom her illegitimate babe, a mother love that failed not in this supreme trial procured for her no pity among all who watched her. But today it is different. Society watches with unconcern the multiplication of lying-in hospitals where unmarried women may be delivered and they returned to good society where painful questions are avoided. Society listens with quiet souls to the tale of the early death by disease, violence or starvation of these abandoned babes, and is not disturbed in its complacent serenity by the doom of moral and intellectual death which too often crowns their physical lives if that happens to be spared them.

Whether mercy or justice should be the social portion of women who have loved not wisely, but too well, may be a question. But there can be no question I think that if mercy is to be shown to any it should be to those who redeem their lapse by maternal faithfulness to the outcome of it. To have been seduced may be no crime. But the woman who having been seduced, purchases salvation from the sign of her shame by the abandonment of her flesh and blood to an unknown fate at the careless hands of strangers, has crucified the tenderest instincts of her womanhood and is unspeakably base.

Though the outgrowths of this social disease are ethical and moral as well as physical, we as physicians have a duty to perform in regard to it which we may not escape through the desire to avoid the charge of preaching. For the underlying cause of all these evils being physical, many

of its results are physical as will be readily acknowledged. With the physical effects we are regularly called upon to deal in venereal and gynecological diseases.

Every profession has two functions to perform and it has not fulfilled its mission to society until it has discharged both functions. Its immediate duty is the alleviation of suffering due to violated laws whether those laws be physical or otherwise. Each profession differs from every other in the kind of work it is called upon to do in this respect. But in their remoter and higher function all the professions are one, bearing the sign of their unity in the title given them. For the most learned men of all professions are called doctors, and the title doctor means a teacher.

It is our immediate duty then to relieve the suffering caused by violation of the laws of life. And that the profession has been faithful to this trust countless heroic lives that have been crowned with the martyr's death testify. But he who not only relieves suffering but teaches those who confide in him how to avoid its return in the future has played the higher part.

No one can tell the truths here spoken of with more effect than we. The minister dealing with the penalty postponed beyond the grave, appeals to no one save those who believe in immortality. While the terrors of the problematical penalty postponed to a future world, loses, in the presence of great temptation, much of its force. But to us it is given to tell the practical story of a penalty which is not postponed, but which is reaped here and now in irrevocable destruction. We can illustrate the truth that the order of things is framed along the lines of justice and truth; that there is a legitimate price set on the thing we would have; and that he who would cheat the World Spirit by taking the joy without paying the legitimate price, must pay a higher price coined either out of his body or his soul.

But we can tell this needed story only after realizing the truth of it ourselves. We must understand with the Greek that

"The dice of the gods are always loaded;" that he who would rob the soul of the universe, crowned by humanity as the God of heaven, is scourged here and now by that infinite Power out of which man sprang, and before which no man can stand.

Realizing this truth of supreme importance we need not fear that the world will not listen, and that our profession, when it has become the teacher of the highest truth given to it alone for proclamation, will take higher rank in the economy of the universe than ever before. For a weary and struggling world, blindly striving in ignorance to escape the lash of a fate whose laws it does not understand, has throughout the ages watched with eager soul and anxious ear for the word of him who with clear note sounded the truth that saves. And when that note has been sounded clear and strong above the tumult, no obstruction avails to stop the progress of those who have heard to higher life and purer joy.

Little as we realize the truth the crown of imperishable fame has been forever placed on the brow of him who taught and not on him who simply does. A truth once taught generates armies whose mission is the organization of that truth in the economy of things, and against which no contesting force can finally stand. Every man whose name is enshrined in the heart of humanity with a splendor that never fades has taught some truth. Moses, Aristotle, Socrates, Plato and Spencer are not remembered for things they did, but for truths they taught. Shakespeare, Milton and Dante are immortal because through their mighty souls there were manifested truths that mould the history of a world.

That which is true of all other arts, sciences and professions is true of ours. We need to realize it more.

Countless physicians and surgeons labor at the bedside to relieve suffering. And that is good, but not the highest good. Prophylaxis is better than medicine. We, if we do only that, and fail to read the

truth below our deed, which needs to be told, and which can only be told by him who sees it, have failed of our highest duty. Pasteur, Lister, Koch and Behring did their clinical work well we may believe, but we know them not for that. Their imperishable worth rests on the fact that out of that work they formulated a truth which when received, did more to relieve suffering and banish premature death than the combined efforts of all who had gone before, but who saw nothing in the sick room other than the sufferer and his symptoms. Through the truth they taught they are immortal indeed. For through the hands and brain of all coming physicians they will work again after their bodies have moldered into dust for untold years.

By the truth of this we must not forget we have duties as teachers of men. No man is an accident either in time or place. And in so far as he does his duty faithfully, earnestly looking at the significance of phenomena out of which that duty springs, there comes to him some truth to be told, small though it may seem, for the telling of which the world will be better; and from utterance of which he may not refrain without some degree of intellectual suicide. There is no more astonishing thing in all the world than this: that the passing years of all ages that have gone have come to man laden with vital truth the learning of which would have been his salvation from present pain, and have come in vain. The lesson has not yet been learned.

Six thousand years have silently slipped into the past eternity since the first man and woman were given for a home the Garden of Eden. With that home, and forever inseparable from it, a law was given, through obedience to which supreme happiness was to be their portion surrounded by all that omnipotent Goodness had made beautiful. But they disobeyed, and because they disobeyed, they were lost to that happiness with which they had been invested. For it is written that "In that hour the Lord God drove

out the man and He placed at the east of the garden of Eden Cherubims and a flaming sword, which turned every way to keep the way of the tree of Life."

From that day to this the lesson that disobedience to the law of life in the home brings immediate pain; and that obedience to that law is the price we must pay for its fullest joy has been reillustrated over and over again in broken hearts and falling tears.

Every true marriage is sanctioned of, and watched over by the soul of the universe. Every true home is a garden of Eden. But now, as of old, the flowers of love that bloom there are garlands of beauty, resplendent with the light of the star of hope that shines from the heaven above them, to gild with glory the chain of eternal law that holds, and which may not be broken. Through obedience that beauty never fades and that light never fails. But the crown of disobedience is immediate ruin. And they who fall are driven out, to watch with staggered soul the Cherubims at the east of the garden, now forever lost, and the flaming sword that still turns every way to keep the way of the tree of life.

FUTURE OF MALARIAL RESEARCH.—Nature gives an interesting summary of the results achieved in malarial research by Manson, Ross, Grassi, Bignami and Bastianelli, and then goes on to indicate the lines along which future achievements may be expected. The different species of anopheles should be hunted for, in order to see if these are the intermediary hosts of the different types of malaria throughout the world, and what species is most concerned in human transmission. Another problem will be, whether the anopheles can be extirpated from a locality and by what means. It seems that the anopheles is confined to small areas, so that "the suggestion of Ross to draw off the water from stagnant pools may not be so hopeless a task as it would at first appear."

ABSTRACT ON PULMONARY TUBERCULOSIS.*

BY T. H. STETTLER, M. D., PAW PAW.

Taking into consideration the fact that one in every six who die of disease the world over, succumbs to tuberculosis, the importance of the subject is apparent. The medical profession the world over is agreed that the direct causative agent of the disease is the tubercle bacillus.

Acute miliary tuberculosis is of short duration and uniformly fatal. Differences in the clinical aspect of cases of chronic phthisis are, in a large measure, due to the different make up of individuals and in their environment.

Tuberculosis is not hereditary. Instances of congenital tuberculosis proven beyond doubt, are few, yet there are such in both human and animals. Owing to the natural immunity, all who are exposed to the contagion do not develop phthisis. There are many factors to weaken or destroy this natural immunity and a certain percentage of individuals be rendered susceptible cases for the development of phthisis.

All causes that lower the nutritive power of the individual are factors in the development of acquired phthisis. An early diagnosis in the preliminary stage of mal assimilation is very desirable. The use of tuberculin to establish this is not without danger. Acute miliary tuberculosis may follow its use, although such instances are very infrequent. After stage of expectoration in which bacilli can be found, diagnosis confirmed. I believe patients have had one, or perhaps two attacks of phthisis and apparent recovery without ever having consulted a physician.

The first step will be to aid and strengthen natural immunity by promoting digestion and assimilation. Try and restore tone and vigor to the system if possible. Change to more suitable climate, recrea-

tion, careful dietary, etc. Get in consonance with renewed environment.

Along this line it is to be hoped that great good will result from the institutions which are being built at the present time for tuberculosis cases, exclusively, and that the medical men in charge will give us more positive evidence in special lines of treatment.

In suitable cases (if such can be found) Murphy's method may as he claims give brilliant results. It seems to me success if possible in his treatment, will depend on the skillful selection of suitable cases. We are at sea with special lines of treatment and the field is infinitely wide. Some practitioners claim brilliant results with serum treatment, others disgustedly fail. It is to be hoped in the near future that we may get more positive evidence in the use of antiphthisis serum treatment.

What can we do to promote artificial immunity? What drugs have not been used?

I believe large doses of carbonate of guaiacol one of the best, this to be supplemented with careful symptomatic treatment.

GENERAL UVEITIS.*

BY J. WHITEFIELD SMITH, M. D., BLOOMINGTON.

Lecturer on Physiology and Hygiene in the Illinois Wesleyan University. Member of the Staff of Deaconess' Hospital.

Mr. V. Aet., 22, American, occupation, brakeman on C. & A. R. R., was referred to me by Dr. C. M. Noble, Sept. 11th, 1899. The patient's family history is very good. His personal history is as follows:

During his childhood he was not strong; had some stomach trouble, and kidney trouble; also affected with asthma. The kidney trouble was characterized by pain in the back and too frequent urination. As he grew older all of these symptoms disappeared, and he became quite healthy.

*Read before the North Central Illinois Medical Association, Mendota, Dec 7, 1899.

*Read before the McLean County Medical Society, Jan. 4, 1900.

When eight years of age, he suffered from a fracture of the right elbow joint, and when ten years old sustained a fracture of left scapula. Made a good recovery from both injuries. Patient had an attack of rheumatism in 1894, which lasted from the fall of that year till the following spring. Has not been affected since, except in very disagreeable weather he occasionally notices a little stiffness of the lower limbs.

This symptom, however, is not emphasized.

At present he seems to be in perfect health, with the exception of his right eye, the vision of left eye being normal.

His ocular trouble was first noticed nearly seven years ago (May, 1893). While hunting, he attempted to shoot a bird, and found that he could not see the sights on the gun with his right eye, owing to some spots which seemed to float down before him.

Nothing was done for the eye till the following winter, when he consulted a physician, who prescribed glasses and some internal medication.

Six weeks later (Feb., 1894) patient consulted an oculist of Chicago, who also prescribed glasses and a general tonic medication. The eye remained about the same with the only symptom of spots in the field of vision till June of last year (1899) when the eye became painful and the vision began to be materially affected. About the first of August the pain in the eye gradually extended back through the temple and the side of the head to the occiput. On the 17th of August patient got a cinder in his eye which also increased the irritation; this was removed the 18th, which apparently gave rise to no further trouble.

Sept. 3d, the headaches became persistent and somewhat violent.

The 11th of Sept. he consulted me, and I found the following conditions:

Pupil slightly dilated—tension very slightly increased—some punctata on the

posterior elastic lamina of the cornea. Dull iris—deepening of the anterior chamber—slight turbidity of the aqueous—pain in the ciliary region on pressure. Pericorneal injection. Ophthalmoscopic examination showed marked opacities in the vitreous, which moved freely about on motion of the eye.

The papilla and blood vessels were obscured from view due to the opacities.

Patient complained of constant pain and photophobia. Vision greatly reduced: could only count fingers at a distance of four or five feet.

Urinary analysis: negative.

The conditions presented themselves to me as a general Uveitis, without a definite assignable cause.

The morale and habits of patient having always been exemplary, and nothing whatever could be elicited in the family history that would seem to influence the case in any way.

The patient's eye remained practically the same during the month of September. About the first of October there was observed a mild keratitis, which disappeared in a few days, leaving the epithelial layer of the cornea somewhat stained.

At my suggestion patient consulted Dr. J. E. Harper, of Chicago, Oct. 12th, who confirmed the diagnosis, and further at my request, consulted Dr. J. E. Colburn, of Chicago, Oct. 28th, who also verified the diagnosis.

At present the patient's condition is improved. The tension is normal, the pupil about the natural size (when not dilated with a mydriatic).

The exudative deposit on Descemet's membrane is being absorbed—the vitreous clearing—the anterior branches of the retinal vessels can be distinguished—the headaches have disappeared since Nov. 15th—the vision is improving, patient can count fingers at eight or nine feet, and objects appear more distinct.

The treatment has been to maintain mydriasis by the use of a sol. of Atropia, gr. 4 to the oz. When this was borne (at

first it seemed to increase the tension and was withdrawn).

The constitutional treatment has been by the use of alteratives. The following have been prescribed at alternating intervals:

- R Potassii Iodidi, 8.00.
Sol. Donovanii, 8.00.
Syr. Auranti cort., 64.00.
Aqua destillata ad, 128.00.
M. S. A teaspoonful three times a day, one hour after meals.
- R Pil. Hydrargyri iodidi viride, gr. $\frac{1}{8}$ each.
Sig: A pill after each meal.
- R Hydrargyri unguenti.
Sig: Inunction, temples.

For the staining in the epithelial layer of the cornea, the following prescription was useful, in clearing the surface of cornea:

- R Holocain .13.
Aqua destillata, 32.00.
M. S. Instill three drops three times a day.

In presenting this case to the medical society the point perhaps of most especial interest, would be the consideration of the cause of the trouble.

In view of the history, no doubt our first thought would be that it is probably of rheumatic origin, and, yet, the etiology must be somewhat determined by the view we take of the pathology of the disease.

It may be apropos in our consideration, to briefly notice some of the views entertained.

It is very difficult sometimes to assign a cause for the condition of a general uveitis which is not the result of a traumatism or of sympathetic inflammation.

The appellations: "Serous iritis," "serous cyclitis," "aquo capsulitis," "hydromeningitis," "keratitis punctata," "decemitis," "catarrhal inflammation of the secreting area of the ciliary body," and "uveitis serosa," are terms generally used in the descriptions of inflammation of the uveal tract; but any one of these terms is liable to be misleading, since they apply

more especially to that anatomic portion of the eye from which they are derived.

The latter, perhaps, is best suited to convey the idea of a general inflammation throughout the uvea.

In a general uveitis, all of the contiguous structures of the uvea are involved. Also some of the adjacent portions may be implicated, such as the retina, optic nerve, and the optic nerve sheath. The portions of the eye which depend directly upon the uvea for nourishment usually suffer in the inflammatory process, viz: the vitreous and the lens.

In the disease manifesting itself as a general uveitis and of idiopathic origin, we have a multiplicity of symptoms and complications.

This disease was first described by Wardrop as aquo capsulitis.

Most of the text books on ophthalmology have determined it serous iritis. Priestly Smith has recommended the name of serous cyclitis. Noyes says it might perhaps be called uveitis serosa. Owing to deposits on the membrane of Descemet and on the capsule of the lens, it was formerly believed that the disease originated in a membrane which formed a serous sac, lining the anterior and the posterior chambers; and this membrane was in connection with the sheath of the vitreous.

The disease was thus spoken of as aquo capsulitis hydromeningitis and decemitis.

In severe cases of serous iritis involving the entire uveal tract the objective symptoms are characteristic and not very difficult of interpretation. The subjective symptoms are not so well marked. The patient complains of an uncomfortable feeling of the eye, there is some pain in the globe and also pain extending back through the temple and side of the head of the affected eye to the occiput. The pain usually is not severe, but is of a dull aching character. There is some photophobia, and the vision is reduced in proportion to the extent of the disease and severity of the symptoms.

The clinical features usually observed are the following:

Changes in the Refractive Media.	Changes in the Uveal Tract.	Changes in the Adjacent Structures.
CORNEA— There is slight haziness of the cornea. Some punctata on the posterior elastic lamina (Descemet's membrane.) AQUEOUS HUMOR— Deepening of the Anterior chamber. Hypersecretion of exudate. Slight haziness of the aqueous. CAPSULE OF THE LENS— The capsule may have a precipitate of the exudate upon its surface. CRYSTALLINE LENS— Degenerative changes may occur in the lens, due to disturbance of the nutrition. VITREOUS HUMOR— The vitreous contains opacities varying from small particles to membranous shreds, as the disease advances the vitreous undergoes liquefaction, contraction and becomes detached.	IRIS— The iris is dull from the inflammation, and the appearance occasioned by the hazy cornea and aqueous. The pupil at first is semi-dilated, due to intraocular pressure and acts sluggishly. There is no great tendency to synechia in the early stages. CILIARY BODY— The ciliary body is in state of inflammation. There is some pericorneal injection, and tenderness on pressure in the ciliary region, pathological changes occur in the lens. CHOROID— Choroiditis is present and its nutritive function disturbed.	RETINA— In very severe cases the retina is inflamed, especially the portion surrounding the optic nerve. OPTIC NERVE— The optic nerve and the optic nerve sheath, may also be inflamed.

"Dr. Knies in 1879 reported an autopsy of such a case and found that the whole uveal tract was involved, as well as the sheath of the optic nerve up to the chiasm. The optic nerve was inflamed and also the retina, for a small area around the papilla.

The deep part of the vitreous was liquefied and detached, its anterior part permeated by granulated cells and membranes." (Noyes.)

In respect to the origin of this disease, E. Treacher Collins, of the Royal London Ophthalmic Hospital, London, Eng., in his book "Researches into the Anatomy

and Pathology of the Eye," puts forth the following view:

"The disease, which was originally described by Wardrop in 1808 as aquo-capsulitis, and which is now generally spoken of as serous iritis, is, I believe, primarily catarrhal inflammation of the ciliary body and of these glands. The whole course of the disease points, I think, in this direction. I would interpret its symptoms as follows: It commences with congestion of the blood vessels around the glands, which manifests itself as circumcorneal injection. This is not associated with pain and photophobia, which symptoms usually occur in iritis. The secretion from the glands becomes augmented, causing increase in the aqueous humor and deepening of the anterior chamber. It also becomes altered in character, more albuminous than usual, and contains a few leucocytes, some pigmented epithelial cells which have desquamated from the surfaces of the glands, and some shreds of fibrin. These formed elements tend to gravitate to the lower part of the anterior chamber and to be deposited on the posterior surface of the cornea, forming the spots of "keratitis punctata," some of which are often pigmented, the pigment being derived from the desquamated cells above mentioned. Some of the leucocytes also collect in the mesh of the ligamentum pectinatum; this, together with the alteration in the character of the fluid, tends to hinder its exit from the eye, and, combined with the excessive secretion, readily leads to increase of tension, which is only temporarily relieved by iridectomy or paracentesis. As a result of these changes in the composition of the aqueous it becomes slightly turbid, which turbidity produces an alteration in the color of the iris. This latter structure is not at first affected, and there is no tendency to the formation of synechiæ until in the later stages, when it has become secondarily involved. The vitreous is early noticed to contain flocculi. The course of the disease, as in all catarrhs, is very variable, and there is great ten-

dency to relapses. Severe cases end in disorganization of the structures which receive their nutrient fluid from these glands. Thus the vitreous shrinks, the lens become cataractous, and a condition of phthisis bulbi results.

The histological appearances of sections from eyes affected with so-called serous iritis are quite in keeping with this theory of its pathology. There is some increase in the size of the glands, some irregularity and proliferation of their epithelium, enlargement of the blood vessels in their vicinity, and a variable amount of round-celled infiltration about them. At the stage in the disease at which eyes are usually obtained for histological examination inflammation is not confined to the ciliary body, but has spread throughout the uveal tract. In the eye of a boy aged nine years in whom the symptoms of this disease followed a wound from a knife, which was excised eighteen days after the injury, I found considerable cell accumulation between the ciliary muscle, and the pigment epithelium, just in the region where these glands are situated.

The dotted opacities on the back of the cornea are frequently spoken of as "keratitis punctata," a term which is of course inappropriate if this theory of their formation be correct, for they are not caused by an inflammation of the cornea, but are deposits of inflammatory products on its posterior surface. In teased specimens of these deposits, besides round cells, pigment epithelial cells similar to those in the tubular down-growths of the ciliary body are occasionally found. The term "descemetitis" for the condition in which these opacities are found is also inaccurate. I have a section of cornea with dotted opacities on its posterior surface in which the endothelium lining Descemet's membrane can be traced continuous and unaltered in front of the accumulations of round cells."

WOES OF GERMAN DOCTORS.—For a long time the profession in Germany have complained of the increase of doctors. An

official inquiry was made in 1898 and it has recently declared that the abnormal increase is a reality. In eleven years the physicians have increased 56%, or exactly five times as rapidly as the population. Instead of one practitioner for 3,000 inhabitants there is now one for 2,197. The most marked increase has been in the number of physicians connected with institutions. In 1887 there were 581, in 1898 1,927, or increase of 332%.

WOES OF ENGLISH DOCTORS.—The number of qualified practitioners in England during the last ten years has increased at the rate of 22%, while the increase of population in the same time has been but one-third of that rate. There is one physician for every 1,272 inhabitants.

WOES OF ITALIAN DOCTORS.—Italy contains 22,000 qualified practitioners. This gives 1 in 1,400 for the country and 1 in 550 for the large towns, 1,200 at Naples, 1,000 at Rome, 750 at Milan and Turin. The salaries of the commune physicians are from \$200 to \$400 annually. A few of the better class get from \$400 to \$800 per annum. There is one practitioner for every 1,400 population.

WOES OF CHICAGO DOCTORS.—Two hundred and fifty physicians took the examination for the position of health inspector of the public schools, paying \$50 per month.

NO MEDICAL TREATMENT OF APPENDICITIS.—The latest dictum of the Academie de Medicine is that there is no medical treatment of appendicitis, surgical treatment being the only rational one. M. Dieulafoy and others condemn unsparingly the routine procedure of rest, opium, ice bag, and purgation. The proper moment of surgical intervention is declared to be within twenty-four hours if the onset is severe and within thirty-six if the attack is less acute. This pronunciamento, taken with the well-known fact that the diagnosis of the disease is not always an easy matter, must sometimes place the poor surgeon in an awkward dilemma.

The Illinois Medical Journal

PUBLISHED MONTHLY.

Official Organ of the Illinois State Medical Society.

Committee on Publication:

E. W. WEIS, M. D., Chairman, Ottawa.

H. N. MOYER, M. D., Chicago.

G. N. KREIDER, M. D., Springfield.

All communications should be addressed to E. W. WEIS, Secretary, Ottawa, Ill.

All remittances for subscriptions should be sent to Dr. G. N. Kreider, 522 Capitol Ave., Springfield, Ill.

The Society does not assume responsibility for any statements or opinions published in this journal.

Entered at the Postoffice at Springfield, Ill., as second-class matter.

Springfield, Ill., February, 1899.

ATTENTION!

The secretaries of all city, county and district medical societies will confer a great favor by furnishing the editor at once a complete list of their officers and members, and the place and date of the next meeting. Sample copies of the Journal will be furnished all members of local societies who have not received them. Reports of the meetings of local societies will be printed in the Journal when furnished by the secretaries.

DIAGNOSIS OF SMALLPOX.

The recent epidemic of smallpox occurring in this country has opened the field of its diagnosis to various interpretations. The average physician with no experience in its diagnostic features is excusable for his ignorance in not readily recognizing it, especially as it sometimes occurs with a symptomatology closely resembling other benign diseases. This is particularly true of the present epidemic now existing wherein the resemblance to chickenpox is so great that only experienced experts are competent to thoroughly differentiate between them.

That this subject should be most thoroughly studied by the general practitioner goes without saying, as so much depends upon his knowledge. That mitigated smallpox can and does exist in epidemic form without fatal results is true, and this state is to be congratulated in its present experience. Other states have not been so fortunate. That the more virulent forms can grow out of the mitigated one, authorities agree. Also that smallpox modified is the disease now raging epidemically in various portions of the country there can hardly be any doubt; as our best authorities on the subject are unanimous in their opinions. It is to be regretted that we are not all equally well versed, particularly in this subject, for where a conflict of opinion rages the communities will accept the view of least commercial danger, especially where real danger to life has not shown itself.

In our daily papers it is now common to see that the diagnosis of the State Board of Health is set aside by local boards, and contagion goes on. We earnestly recommend the reading of Dr. J. Nevins Hyde's letter in the January number of this Journal. In it the differentiating characteristics are so clearly elucidated that we of lesser experience and observation cannot fail of correct diagnosis by its guidance.

W.

FAILURES HAVE THEIR VALUES.

In the development of medical science and the final establishment of its accepted truths, failures without number have been the cost by which success has been achieved. Indeed the chief business in each succeeding age seems to have been, to clear away, as so much rubbish, the false assertions and unfounded theories of those who had preceded them. And yet these failures,

countless as they were, were not without their value. He alone is certain of what he can accomplish who perfectly understands his limitations, and failures serve only to hedge in his pathway to success. The skillful surgeon is guided not only by a clear conception of what can be done, but also by as clear a knowledge of what would prove a failure.

In this connection a teaching from Bilroth, which showed the manhood of the man is in point. One day a brilliant operation had been made in the presence of his class, and he had been vigorously applauded. The result proved unsuccessful and the patient died. At a later meeting of the class he critically reviewed the case and carefully pointed out what he conceived to have been his error, and but for which he thought the operation might possibly have been successful. In conclusion he made this remark so characteristic of the man: "To point out our failures is most needful, for ourselves and for you; our successes will take care of themselves."

So, too, in medicine, what tomes of literature have been written in one age, to be unwritten in the next. Yet this continuous iconoclasm has served us well. In every age some golden truths survived, and amidst the wreckage there remained a salvage worth the saving. Nor is the labor ended. The current of the present age is piled with driftwood, to be stranded in due time. Only failures can conduct false theories to their fitting tomb. Today the world is full of "pathies." The work of their interment will be immense. Failures alone can do it. Give them time and they will do it well, for failures alone have that power, and in that they have their value.

H.

CORRESPONDING MEMBERS.

At the last annual meeting an amendment to the constitution was proposed, providing for the election of corresponding members. Dr. Gordon, of Havana, Cuba, having applied for that honor, the following correspondence concerning his standing explains itself:

Major General Leonard Wood, Havana, Cuba.

Dear Sir—One Dr. Antonio de Gordon, of Havana, has applied to this Society for the honor of corresponding member. As you doubtless know our Societies have not heretofore been in the habit of electing such members as is the custom in the Latin and European countries. I have made a move to change our constitution to create such a division and the Society will doubtless be glad to confer upon Dr. Gordon the honor he seeks if he should be found worthy. My reasons for this will be found in the clipping which I enclose.

Will you kindly have a report mailed me of the standing professionally and personally of Dr. Gordon, and greatly oblige,
Geo. N. Kreider, M. D., Treas.

Havana, Jan. 15th, 1900.

To the Military Governor of the Island.

Sir—Respectfully returning the inquiry requested from you by the Treasurer of the Illinois State Medical Society, and the endorsement in which you solicit information as to the qualifications of Dr. Antonio de Gordon to be a member correspondent of said Society, I beg to say, that as a private individual, said gentleman enjoys the best of reputations, and that, as a man of science he has deserved the greatest distinctions as shown by the printed sheet which I enclose for your information. He is, besides, the author of various works published in pamphlet which, according to the notice accompanying same, are distributed gratis.

Yours with highest consideration,

Diego Tamayo; Sec'y.

Correspondence.

WHY WE CALLED IT CHICKENPOX.

Editor Illinois Medical Journal:

In the January number of the Journal is an "open letter" from Dr. James Nevins Hyde in regard to the epidemic, which prevailed in this community for three months, but which has disappeared since the cold, clear weather at the beginning of the present month, in which Dr. Hyde had "an opportunity to observe a group of selected cases." A majority of our physicians, who have not only looked once at a group of cases, but have carefully and conscientiously followed scores of cases from the initial stage to complete desquamation, are still unconvinced that we were dealing with smallpox.

Having had six cases of severe type, one hemorrhagic, and more than thirty mild cases with eruption, and nearly as many with the same initial stage, high fever, severe headache and backache, usually in the sacral region, without eruption, I wish from Dr. Hyde's "letter" to explain why we called it chickenpox. He says of chickenpox, "the eruptive symptoms speedily appear, first as slightly reddened blotches, scarcely larger than half a pea upon the surface, which rapidly become exceedingly superficial, "watery heads" (vesicles) without the previous occurrence at the site of each, of elevated, firm shot-like masses in the skin underlying each point. A feature of distinguishing importance in this malady is the rapid occurrence of the eruption over the protected rather than as in smallpox over the unprotected surface of the body, and in successive crops, the patient at the moment of first examination, for example, exhibiting larger numbers of the blister-like "watery heads" (vesicles) over the back or on the chest, with a relatively smaller number on the face." It was upon this "feature of distinguishing importance" that I first based my diagnosis of chickenpox. At the beginning of every

case I attended, the eruption appeared in crops with an interval of usually four days, between each successive crop, and the second and third crops came out among the eruption that had appeared before; and at the first appearance there was always more on the back than on the face. In the majority of cases, which I saw, there was more eruption on the covered parts of the body than on the uncovered throughout the disease.

The first time I saw my first severe case she had a temperature of 105°, pulse of 120, there were a few scattered pink spots over left eye, which were raised above the skin level, the back was quite full of the same pink eruption about the size and shape of radish seeds. After my visit she was feeling so well that she was around the house and I did not see her for four days, when her mother sent me word that she was "breaking out" worse than when I saw her. I went to see her and she was broken out all over, the eruption nearly confluent around the mouth and looking like herpes labialis. In four days another crop appeared so that she had, at the same time and in the same locality, those which were desquamating, those that were vesicular and the pus eruption.

In all my cases they were practically well when the third crop appeared.

To quote farther from the clinical picture of Dr. Hyde, "The velvety elevations are never puckered on the roof-wall of the single chamber containing the clear or opalescent fluid (serum)." In my hemorrhagic case I tried to shorten the duration of the eruption by opening the vesicles. There was a free flow of sanguineous serum from the "single chamber," but never any puckering. And again from Dr. Hyde, "The crusts which form subsequently are thin and friable; the vesicles never develop into unmistakable pustules." In my first severe case the mother called my attention to the "friable" scales in her daughter's bed before she arose in the morning. She first noticed them at the time the last crop of vesicles appeared. When I saw them I thought the child had

bèen eating crackers and these were the crumbs, but a closer examination of the child disclosed that they were from the desquamation of the first eruption in friable crust. Since then I have seen them swept out of many beds with hand broom and dusting pan to be burned. I never saw the appearance of pustulation in any but my hemorrhagic case; here large bullæ formed on the forearms and just above the ankles, where the eruption was confluent. Those on the ankles were rubbed off by his movements in bed, and superficial ulcers formed, but the most obstinate of these, which were larger than a silver dollar, healed without leaving any mark, but presented a smooth even surface when healed.

I think by his showing we are perfectly justified in calling this disease chickenpox; but there are other weighty reasons why it should not be called smallpox. My lightest cases were among those who had never been vaccinated. My hemorrhagic case has a well-marked vaccine scar, two of my other severest cases came on from ten day to two weeks after vaccination with glycerinized lymph, which was pursuing the classical course of induration, vesicle, indenture, etc., and those immune from the disease were readily vaccinated with classical symptoms following. By the showing of the State Board of Health we had five hundred cases when they made their examination. With what went before and what followed we must have had one thousand cases and among all these cases there was not a single death. The only death which has in any way been associated with this epidemic was a poorly nourished, prematurely born child (seven and one-half months gestation) which was vaccinated several days before any eruption appeared, and died ten days after vaccination, aged twenty-eight days. We have had an unusually low death rate this fall and winter, and think I am justified in saying that we have not been guilty of egregious folly, but have had elephant chickenpox instead of "baby smallpox."

Dixon, Ill. Harriet E. Garrison.

EXCURSION TO INTERNATIONAL MEDICAL CONGRESS, PARIS.

The committee having in charge the proposed European excursion for the Illinois, Iowa and Missouri State Medical Societies have just completed their arrangements for the ocean voyage.

After careful investigation and deliberation, we have decided to place our party in charge of Hon. Frank C. Clark, of New York City, who has had a large and successful experience in conducting tourists all over the world. We have satisfied ourselves as to his integrity and his ability to do exactly as he has contracted. Mr. Clark, although organizing several other large excursions, does us the honor to personally conduct our party, which is an additional guarantee of good faith on his part. We have assured ourselves that all accommodations will be first-class; that the comfort and convenience of the members will be carefully considered, and that everything will be done to make the trip an ideal one. In a word, arrangements have been so made as to afford the maximum advantage of congenial companionship, intelligent leadership, and a wise economy of time and money. We could have secured lower rates than those now offered, but all cheaper excursions involve discomforts and waste of time which are not sufficiently compensated for by the difference in cost.

The magnificent steamship "City of Rome" has been chartered for our party and will sail from New York June 30th, 1900. The main trip will occupy 38 days. The itinerary will be from New York to Derry, thence to Glasgow and Edinburg, Melrose, Durham, York, London, Brussels, Paris, back via London, Windsor, Oxford, Stratford on Avon, Warwick Castle, Chester, Dublin, Belfast, Glasgow, Derry, thence to New York, arriving there August 6th. The cost of this trip all necessary expenses included will be \$260, or if a more extended trip is desired, provision is made for a week in Switzerland and down the Rhine for \$70 additional. Also a 14 day trip through Italy, Milan, Venice, Flor-

ence, Rome, Pisa, Genoa and other places of interest for \$100 additional. Tickets good for one year.

The European tourist next year will be subjected to more than the usual crowding on steamers, at hotels, extortions and annoyances which detract so much from the pleasure of a tour in foreign countries. These we have anticipated and provided against. Our steamer is chartered by Mr. Clark, and no more passengers will be booked than can be comfortably accommodated. The same is true of the hotels, which are already engaged. These are important considerations not to be overlooked in the selection of a route.

The anticipated rush of European travel next year makes it necessary for those desiring good accommodations to secure their staterooms early; therefore, we advise that you secure your staterooms at once. This can be done by sending deposit (\$25) to me, or direct to Mr. Clark. It will be far better to forfeit a small cash deposit, in case of final change of plans, than to have so important a part of the tour ruined through a want of ordinary business precaution. It is more than probable that instead of sustaining even this small loss in the event of an enforced change of plans that your berth can be sold at a premium. While all the rooms and berths are first-class, some are more desirable, by reason of location, than others. The best will, as a matter of justice, be allotted to the early depositors.

Arrangements for railroad rates between Chicago and New York are not yet completed. Negotiations have progressed far enough to warrant the committee in guaranteeing a one fare rate for the round trip. If the party is large enough (the indications now are that it will be), we will have a special train of sleepers with dining and observation cars attached which will be under the exclusive direction of our committee. Arrangements will be made to stop at all points of interest as long as may be desirable. For example, if the route taken be via Niagara Falls we will stop long enough to see the Falls to the best advantage. If as now seems probable, the several leading

roads offer us equally good inducements, the route selected will be left to a majority vote of those composing the party.

For further particulars address the undersigned or Hon. Frank C. Clark, 111 Broadway, New York City, who will send you immediately booklet containing full particulars as to itinerary, rates, time of sailing, etc.

Yours truly,
J. W. PETTIT,
Ottawa, Ill.

Member of Committee of Arrangements
for Illinois State Medical Society.

County and District Societies.

ADAMS COUNTY MEDICAL SOCIETY.

President, Frank E. Tull, Quincy.
Secretary, W. W. Williams, Quincy.

WINNEBAGO COUNTY MEDICAL SOCIETY.

President, T. N. Miller, Rockford.
Vice-President, M. C. Hunter, Rockford.
Sec.-Treas., J. H. Frost, Rockford.

M'LEAN COUNTY MEDICAL SOCIETY.

President, E. E. Sargent, Leroy.
Vice-President, C. E. Chapin, Bloomington.
Secretary, E. J. Hyndman, Bloomington.

Treasurer, J. W. Fulweiler, Bloomington.

Censors, A. L. Fox, Lee Smith, J. B. Taylor, all of Bloomington.

MORGAN COUNTY MEDICAL SOCIETY.

President, W. C. Cole, Jacksonville.
Vice-President, J. G. Franken, Chandlerville.

Secretary, Edward Bowe, Jacksonville.
Treasurer, E. F. Baker, Jacksonville.
Librarian, H. C. Campbell, Jacksonville.
Editor, C. E. Black, Jacksonville.

Membership, 68; increase during year,

MEDICAL AND SURGICAL SOCIETY OF WESTERN ILLINOIS.

President, H. W. Smith, Roodhouse.

First Vice-President, J. S. Williams, Jerseyville.

Second Vice-President, J. H. Hairgrove, Jacksonville.

Secretary, H. A. Chapin, Whitehall.

At the annual meeting convened at Whitehall January 5, 1900, others present were: A. K. Van Horn, Jerseyville; G. W. Ross, Carrollton; C. E. Black, Jacksonville; H. W. Chapin and J. W. Redwine, Whitehall.

A. K. Van Horn read a paper on pneumonia.

J. W. Hairgrove gave a talk on pelvic abscess. Both subjects were discussed by those present.

Next meeting at Carrollton, May 4.

Present physicians of the Illinois Eastern Hospital:

J. C. Corbus, Superintendent.

E. F. Enos, Assistant Superintendent.

A. W. Hawley.

T. R. Foster.

Howard Corbus.

C. O. Shronts.

M. Hektoen.

H. C. Adams, Pathologist.

Violet Palmer.

At a meeting of the Will County Medical Society held January 10th, the following were elected officers:

President, G. M. Peairs, Joliet.

Vice-President, R. H. Henry, Peotone.

Secretary and Treasurer, Thomas H. Wagner, Joliet.

It being a business meeting, no papers were presented, but Dr. Wagner presented an interesting case. Last April he amputated arm above the elbow for carcinoma of the forearm, also removing the axillary glands. Case recovered without incident and was lost sight of until December last, when patient presented himself for treatment, complaining of shortness of breath and slight cough. Examination revealed

absolute dullness over right side (the same side on which arm was amputated) no motion or respiration on that side. Pulse 140-150, temperature 93.5. Repeated takings have never shown any higher temperature. General condition of patient good.

A general discussion of the case followed. Meeting adjourned to meet Nov. 14th, 1900.

The Sangamon County Medical Society met in the County Court room with J. N. Dixon in the chair. The secretary being absent, B. B. Griffith was appointed secretary pro tem. Twenty-two members and two visitors were present.

The name of D. M. Ottis was proposed for membership by L. C. Taylor, application being accompanied by the fee of \$2.00, and was referred to the Board of Directors for report at next meeting. The application of W. V. Guttery, of Middletown, presented by A. E. Prince, being informal, same was returned to him for completion. J. Brayshaw moved that a committee be appointed to draft suitable resolutions regarding the death of Dr. W. B. Price. The chair appointed J. Brayshaw, E. E. Hagler and S. E. Munson, as said committee.

The program for the evening was then taken up. M. M. Bradley opened same with "Etiology of Nephritis." Compared present knowledge of the disease with that of writers prior to 1827, when Bright made his discovery in regard to same. Noted the marked changes which have occurred since the use of the microscope and bacteriological research. Spoke of the infectious nature of the disease, and the varying character of same.

W. A. Young followed with "Symptomatology." First considered acute nephritis, which he termed not a primary disease, but following colds, acute exanthemata, etc. Described the different stages of the disease; the albuminuria and casts in urine, and the dropsy which as a rule became general. Then considered chronic paren-

chymatous nephritis with resulting heart affection, anemia and uremia. Albuminuria an important symptom in the disease, but not so important pathologically as casts or cylinders, which he considered the only positive sign of the disease.

O. B. Babcock considered the diagnosis of nephritis, and J. H. Utley spoke upon the microscopical pathology of same.

E. E. Hagler took up the eye symptoms of nephritis; said eye symptoms of doubtful advantage; when present an unquestionable prognosis; 95 per cent such cases dying in two years after eye symptoms become manifest.

L. C. Taylor was called upon to discuss treatment. Called attention to the suppression of urine and need for cholagogue cathartic, diaphoresis and Diuretics.

G. F. Striker drew a difference between treatment of acute and chronic nephritis. The committee appointed to draft resolutions on the death of W. B. Price, reported as follows: In the death of W. B. Price, of New Berlin, which occurred on the 6th day of January, 1900, we the physicians of the Sangamon County Medical Society, at this meeting, desire to give expression of our respect for him, and condolence for those in sorrow for his death. He had been engaged in the faithful practice of medicine for over forty years, most of the time in Sangamon County. He graduated from Jefferson College, Philadelphia, in 1859, and has given the best years of his life to the care of the sick and afflicted in the community in which he lived. He was a surgeon in our civil war, having responded to the call of his country, being made surgeon of the 4th Pennsylvania Vol. Cav.

Resolved, That we take this occasion to testify to his excellent qualities, bowing in submission to the will of the Great Physician.

Resolved, That we extend to the family our heartfelt sympathy.

Resolved, That a copy of the resolutions be furnished to the family, and to the daily papers for publication.

The Society then adjourned to the dining hall of the Delicatessen, where a fine lunch was served, and after general discussion of the topic of the evening the Society adjourned.

NOTICE.

At the forthcoming meeting of the State Society, the subject of the diagnosis and treatment of adenoids will be considered by Dr. Edward S. Dickerman, who will exhibit specimens and show several modifications of special instruments.

Dr. Wm. Allen Pusey, who has recently returned from Vienna, will speak on the "Present Treatment of Syphilis." The discussion on his paper will be opened by Dr. L. Blake Baldwin and Dr. Wm. L. Baum.

Dr. Wm. H. Wilder, of the Illinois Eye and Ear Infirmary, will read a paper on "Syphilis of the Eye."

Dr. E. H. Ochsner will consider "Ankle Sprain." He will show a special bandage in use one hundred years ago and will demonstrate its application.

Dr. Allen T. Haight will present a paper on "Gonorrhœal Conjunctivitis."

Dr. J. B. DeLee asks the correction of a statement. He is connected with the Chicago Lying-in Hospital and Dispensary and not as erroneously stated, with another institution.

Dr. M. L. Harris will read a paper on the "Operative Technique of very large Inguinal Herniæ." The discussion will be opened by Dr. Weller Van Hook, Dr. A. H. Ferguson and Dr. A. L. Bouffleur.

Dr. L. L. Leeds, Lincoln, Ill., will present a paper on "Slight Ailments."

Dr. G. S. Bower, Galesburg, "The Criminal and His Kin; how can we decrease them."

Dr. James E. Coleman, Canton, "The Scientific Need of Enforcing County Registration of Syphilitics."

Dr. R. H. Henry, Peotone, "What shall the Harvest be."

Dr. Charles B. Johnson, Champaign,

"Insects, Infection and Immunity."

Dr. N. S. Davis, Sr., Chicago, "Some of the Evils Resulting from the Naming of Diseases for Individuals."

Dr. J. C. Sullivan, Cairo, "Smallpox; its Differential Diagnosis."

Dr. C. E. Black, Jacksonville, "Pneumonia and its Treatment."

Dr. E. Wing, Chicago, "The Nature and Treatment of Locomotor Ataxia."

Dr. Archibald Church, Chicago, "A New Treatment of the Opium Habit."

Dr. Frank Billings, Chicago, "Myxedema with Report of Cases."

Dr. C. D. Center, Quincy, "A Case of Multiple Cerebral Hemorrhage, Operation and Recovery."

Letters each with enclosure have been received from

R. W. Bishop, Chicago.

E. B. DeGraff, Rushville.

R. W. Reasoner, Morrisonville.

A. A. Fitts, Batavia.

H. S. Strain, Nokomis.

J. W. Smith, Bloomington.

J. R. Webster, Monmouth.

E. E. Sargent, LeRoy.

E. E. Perisho, Ancona.

W. A. Nason, Algonquin.

Henry Richings, Rockford.

A. L. Craig, Aledo.

Ellen Miner, Champaign.

M. P. Parrish, Decatur.

W. K. Newcomb, Champaign.

H. P. Beirne, Quincy.

John H. Rice, Quincy.

THREE VICTIMS OF "CHRISTIAN SCIENCE."—At an inquest in the case of a young girl who died in Council Bluffs, Iowa, last week while under the care of a "Christian Scientist," it was discovered that death was caused by appendicitis. It is probable that criminal proceedings will be instituted against the "healer." Two deaths under similar conditions are reported from New Brighton, Pa., where a "Christian Scientist" treated a family stricken with diphtheria, with fatal results in two cases.

Dr. Denslow Lewis was unanimously elected president of the attending staff of Cook County Hospital at their annual meeting, December 28th last. Dr. L. Blake Baldwin was elected secretary. The executive committee appointed for the current year consist of Dr. Weller Van Hook, Dr. G. F. Butler, Dr. A. I. Bouffleur, and the president and secretary ex-officio.

Dr. W. A. Evans addressed a meeting of the stockbreeders and dairymen, in session January 6, on the danger of milk taken from cows suffering from tuberculosis.

Marriages, Deaths, Change of Address

MARRIAGES.

Dr. J. Morgan Sims and Miss Enola Wilson, of Edwardsville, Dec. 26, 1899.

Dr. William Hessert and Miss Tillie Buehler, of Chicago, Jan. 10, 1900.

Dr. Leon W. Young and Miss Winifred Clare Waters, of Chicago, Jan. 17, 1900.

Dr. Hugo G. Fischer, of Chicago, and Miss Lily Millard, of Highland Park, Jan. 19, 1900.

DEATHS.

(Furnished by the State Board of Health.)

Corgan, L. F., at Woodburn, Jan. 23, age 49.

Garretson, Peter H., at Peoria, Jan. 8.

Kingston, Thos. A., at Jerseyville, age 68.

Knott, Ananias B.

McIntosh, Carlton W., at Northfield, Vt.

Price, Wm. B., at New Berlin, age 66.

Royal, B. A., at Villa Ridge, age 51.

Rice, C. S., at Disco, Dec. 29, 1899.

Tefft, Leslie E., at Elgin, age 52.

White, C. A., at LaGrange, Ind.

Williamson, John, at Chicago, age 60, Jan. 14.

Obituary—We announce with great regret the death of Dr. Albert E. Hoadley of Chicago, Jan. 18, 1900, age 53. Prof. Hoadley had been a faithful and efficient member of the State Medical Society since 1885. An appropriate sketch of his life will be read by the committee on necrology at the approaching annual meeting.

CHANGES OF ADDRESS.

(Furnished by the State Board of Health.)

CHANGES IN CHICAGO.

Briney, W. F., 330 S. Paulina st. to 1137 Central Park ave.

Brown, G. M., 298 Maxwell st. to Provident Hospital.

Burkholder, S. G., 3135 Vernon ave. to 1816 Michigan ave.

Burgess, S. F. K., 552 Madison st. to 9 S. Ada st.

Crabtree, Hezediah T., 163 Howe st. to 623 E. 65th st.
 Davis, F. Achilles, 2358 Indiana ave. to Mercy Hospital.
 Kinney, Thos. J., 164 Howe st. to 535 N. Clark st.
 Lowenthal, L. L., 877 W. Polk st. to 473 Ogden ave.
 Lydston, G. Frank, remains at 101 State st. No change of address as stated last month.
 Palmer, Loring B., Provident Hospital to 171 22nd st.
 Proudfoot, A., 694 W. Adams st. to 100 State st.
 Schachter, Joachin, 324 Blue Island ave. to 417 W. Division st.
 Sturns, A. B., House of Correction to German Hospital.
 Street, R. H., Hahnemann Hosp. to 83 20th st.
 Tischart, Petrus J., 839 W. 47th st. to 5105 Halstead st.
 Waldron, Joel H., 2170 W. 26th st. to 2070 W. 26th st.
 Winchell, Marie A., 17 Ashland Boul. to Dunning.
 Zeitler, Johannes, 221 Montrose ave. to 221 Monroe st.

CHANGES FROM CHICAGO.

Atwood, R. J., to Champaign.
 Allen, D. W., to Ohio, Ill.
 Artin, Arsen L., to Hennepin.
 Bench, E. M., to Galena.
 Cutts, E. H., to New Boston.
 Everett, Geo. H., to ————
 Holland, W. E., to Jerseyville.
 Miller, J. L., to Pasadena, Cal., temporarily.
 Minckler, Phila E., to Forreston.
 Otis, L. J., to Seaton.
 Prince, L. H., to Palmyra, Wis.
 Rhodes, Clinton C., to Monticello.
 Small, Harry E., to Sterling.

CHANGES TO CHICAGO.

Allen; Thos. G., Aurora to 3761 Washington ave.
 Bokhof, Clayton G., Rock City to Provident Hospital.
 Berg, Ludwig M., Nuevo Laredo, Mex., to 2216 Michigan ave.
 Bryan, Francis F., Georgetown, Ky., to 225 N. Dearborn st.
 Davis, Arnold C., Jr., Farina to Chicago Homeopathic Hospital.
 Davis, Henrietta H., Henderson, Ky., to 6428 Greenwood ave.
 Hover, Hugh, Mackinaw to 305 S. Leavitt st.
 Lytle, Jas. Reed, Rankin to 5625 Aberdeen st.
 Lewis, Grace M., Wheaton to 154 Walnut st.
 Lockwood, John F., Batavia to 1036 Sheridan Drive.
 Leland, John T., Normal to 4257 Cottage Grove ave.
 Lapham, Anna R., Victoria to 298 Maxwell st.
 Pyles, Freeda M., Valparaiso, Ind., to 2955 Groveland st.
 Statkiewicz, Wladyslaw, to 3315 S. Morgan st.
 Wyland, Geo. V., Lyndon to 329 W. Erie st.

CHANGES FROM ILLINOIS.

Bonney, Joel W., Quincy to Tarkio, Mo.
 Dulin, Chas. T., Raymond to ————
 Dulin, Wm., Nokomis to ————
 Davis, Jos. B., Oregon, Ill., to Minnesota.
 Engle, Arthur L., Geneseo to ————
 Gray, Henry A., Butler to Keokuk, Ia.
 Hague, Albert S., Grand Ridge to Fairfield, Ia.
 McQuaid, T. L., Mt. Vernon to St. Louis, Mo.
 Neff, John Bright, Flora to De Soto, Mo.
 Reasoner, R. W., Morrisonville to Colorado Springs, Col., temporarily.
 Sintzel, Louis J., Belleville to St. Louis, Mo.

CHANGES TO ILLINOIS.

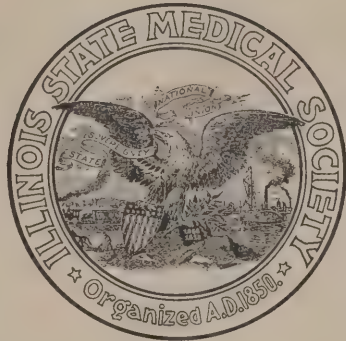
Burns, W. Irving, North Tonowanda, N. Y., to Harvel.
 Bristol, E. L. M., to Highland.
 Chatham, J. R., to Elco.
 Heaton, E. V., Freemont, Ia., to Rock Island.
 Heitman, Jefferson H., Dudley, Mo., to Lima.
 Heideman, A. C., New Haven, Mo., to Edwardsville.
 Harland, Wm. O., to Mansfield.
 Pyle, Henry G., Cleveland, O., to Pontiac.

CHANGES IN ILLINOIS.

Auten, F. El., from Chester.
 Asire, J. L., Witt to Paisley.
 Blood, Orville M., Elburn to Galesburg.
 Brand, Fred H., Lincoln to Moline.
 Cleland, Jas. S., Campbell Hill to Swanwick.
 Dunn, D. W., DuQuoin to Mattoon.
 Donovan, H. V., Lovington to Toledo.
 Fletcher, H. H., Winchester to N. Henderson.
 Gose, C. J., Auburn to Glenarm.
 Goodwin, Wm. H., Indianola to Fairmount.
 Higgins, R. F., Vandalia to Chester.
 Hull, H. D., Nunda to Crystal Lake.
 Hodgson, Wm. H., Charleston to Mattoon.
 Horner, Clyde, to El Paso.
 Jackson, Geo., Fishhook to Bluff Springs.
 Jones, Horace E., McLeansboro to Thompsonville.
 Kahn, Chas., Elgin to Joliet.
 Lockhart, Chas., Hillsboro to Witt.
 Mosher, Madison E., Springfield to Watseka.
 McMahon, Claude H., Flora to Carlyle.
 Morgan, Luther H., East St. Louis to Herrin.
 Mason, Jas. S., Penfield to Rantoul.
 McGurty, P. H., Hume to Martinsville.
 McCabe, A. A., Mount Sterling to Disco.
 Morse, Arthur W., Joliet to Odell.
 Nicolay, N. Florence, Waverly to Midland City.
 Nicolay, John W., Bloomington to Midland City.
 Powell, Geo. P., LaHarpe to Dixon.
 Round, Thaddeus J., Morrison to Tampico.
 Russell, Harry W., East St. Louis to Venice.
 Suttle, A. L., Pawnee to Fancy Prairie.
 Smith, J., El Paso to New York City.
 Turner, G. F., to Dana.
 Trautmann, Theodore J., Reno to East St. Louis.
 Vaughan, Robt. F., Sailor Springs to Mound City.
 Willingham, R. H., Elizabeth to Lamb.
 Waller, Fayette K., Belmont to Mt. Carmel.

ILLINOIS Medical Journal

The Official Organ
of the
State Medical Society



A Monthly Bulletin
Edited by the
Publication Committee

Printed by
THE ILLINOIS STATE JOURNAL COMPANY.

Entered in the Springfield Postoffice as Second-Class Matter.

Volume XLIX. New Series, Vol. I. Number 9.	Springfield, Ill., March, 1900.	{ Subscription, \$3 a Year. Single Copies, 25 Cents.
--	---------------------------------	---

TABLE OF CONTENTS.

ORIGINAL ARTICLES.

A Mechanical Method of Treating Sciatica —C. C. Hunt, M. D., Dixon.....	419
Why and When Operate for Appendicitis— W. F. Grinstead, M. D., Cairo.....	423
The Medico-Legal Aspect of Bright's Dis- ease—Columbus Barlow, M. D., Robinson	427
Diagnosis and Clinical Course of Puerperal Eclampsia—Frank B. Earle, M. D., Chi- cago.....	431
An Unusual Case of Perforating Gastric Ulcer—C. W. Hall, M. D., Kewanee.....	435
Two Affections of the Knee Joint, Gonor- rheal Synovitis, Loose Body in the Joint—Geo. N. Kreider, M. D., Spring- field.....	436

EDITORIALS.

Aid the S. B. of H.....	440
Assistance Necessary.....	440
Are We Wiser Than They?.....	441
Beware the Promoter.....	442

CORRESPONDENCE.

Correction—Harriet E. Garrison, M. D., Dixon.....	454
--	-----

Dixon Epidemic—C. S. Nelson, M. D., Springfield.....	454
Why It Is Not Chicken Pox—J. A. Egan, M. D., Springfield.....	455

COUNTY AND DISTRICT SOCIETIES.

Chicago Medical Examiners' Association..	442
Chicago Surgical Society.....	442
Schuyler County Medical Society.....	443
Rock River Medical Association.....	443
Wabash County Medical Society.....	443
Morgan County Medical Society.....	443, 445
Brainard District Medical Society.....	443
Chicago Physicians Club.....	444
Decatur Medical Society.....	447
Sangamon County Medical Society.....	449

STATE BOARD OF HEALTH ITEMS.

Chicken Pox in the Adult.....	438
Small Pox in Illinois.....	457
Another Warning.....	458

Notices.....	462
Marriages, Deaths, Changes of Address....	463
Medical Miscellany.....	460
Chicago News Items.....	459



Next Annual Meeting

Will be held in **Springfield** the

Third Tuesday of May

AND TWO SUCCEEDING DAYS (Viz: 15th, 16th and 17th), 1900.

Officers and Committees for the Year 1899-1900.

OFFICERS:

HAROLD N. MOYER, Chicago.....PRESIDENT
 J. T. McANALLY, Carbondale.....FIRST VICE PRESIDENT
 WELLER VAN-HOOK, Chicago.....SECOND VICE PRESIDENT
 EDMUND W. WEIS, Ottawa.....PERMANENT SECRETARY
 B. B. GRIFFITH, Springfield.....ASSISTANT SECRETARY
 GEORGE N. KREIDER, Springfield.....TREASURER

SECTION ONE.

PRACTICE OF MEDICINE, MEDICAL SPECIALTIES, MATERIA MEDICA AND THERAPEUTICS.

H. C. Mitchell.....Chairman
 Carbondale.
 Charles D. Center.....Secretary
 Quincy.

SECTION TWO.

SURGERY, SURGICAL SPECIALTIES, AND OBSTETRICS.

Denslow Lewis.....Chairman
 5100 Madison Ave., Chicago.
 C. E. Black.....Secretary
 Jacksonville.

SECTION THREE.

ETIOLOGY, STATE MEDICINE AND MEDICAL JURISPRUDENCE.

George F. Butler.....Chairman
 Chicago.
 W. J. Fernald.....Secretary
 Rantoul.

COMMITTEE ON MEDICAL LEGISLATION.

J. W. Pettit, Ottawa, Chairman.
 Joseph Robbins, Quincy.
 W. H. Wilder, Chicago.
 J. A. Egan, Springfield.
 The President, Ex-Officio.

COMMITTEE ON NECROLOGY AND BIOGRAPHY.

John H. Hollister, Chicago.
 O. B. Will, Peoria.
 E. J. Brown, Decatur.

COMMITTEE ON MEDICAL SOCIETIES.

C. W. Hall, Kewanee.
 J. A. Baughman, Neoga.
 J. O. DeCourcy, East St. Louis.

COMMITTEE ON REGISTRATION. (Ex-Officio.)

George N. Kreider, Springfield.
 B. B. Griffith, Springfield.

EXECUTIVE COMMITTEE. (Ex-Officio.)

H. N. Moyer, Chicago.
 Edmund W. Weis, Ottawa.
 E. P. Bartlett, Springfield.
 H. C. Mitchell, Carbondale.
 Denslow Lewis, Chicago.
 Geo. F. Butler, Chicago.

COMMITTEE ON PUBLICATION.

Edmund W. Weis, Ottawa.
 H. N. Moyer, Chicago.
 George N. Kreider, Springfield.

COMMITTEE ON ARRANGEMENTS. Springfield.

E. P. Bartlett, Chairman, Sp'g'd.
 J. N. Dixon, Springfield.
 O. B. Babcock, Springfield.
 C. M. Bowcock, Springfield.
 B. B. Griffith, Springfield.

COMMITTEE ON SOCIETY HISTORY.

N. S. Davis, Chicago.
 Robert Boal, Lacon.
 DeLaskie Miller, Chicago.
 E. Ingals, Chicago.
 J. H. Hollister, Chicago.
 Edmund Andrews, Chicago
 T. D. Fitch, Chicago.
 L. G. Thompson, Lacon.

JUDICIAL COUNCIL.

C. C. Hunt, Dixon.
 Hugh T. Patrick, Chicago.
 C. DuHadway, Jerseyville.
 J. F. Percy, Galesburg.
 James L. Reat, Tuscola.
 C. E. Black, Jacksonville.
 E. P. Cook, Mendota.
 D. W. Graham, Chicago.
 O. B. Will, Peoria.

Permanent Secretary's Office, Ottawa.

The Illinois Medical Journal.

The Official Organ of The Illinois State Medical Society.

VOL. XLIX.
New Series, Vol. I.
No. 9.

Springfield, Ill., March, 1900.

{ SUBSCRIPTION
{ \$3.00 A YEAR.

A MECHANICAL METHOD OF TREATING SCIATICA.*

BY C. C. HUNT, M. D., DIXON.

So far as is now known, neuritis or perineuritis, or both, is the pathological condition in the vast majority of cases of sciatica met with in general practice. Cases due to organic disease, old inflammatory deposits, pressure from growths, syphilis, etc., or any conditions which bring about degenerative changes in the nerve structure, are comparatively rare. The former respond more or less quickly to the combined treatment—extension, suspension, and rest. The latter are either incurable or require long periods of treatment, as a rule, and permanent impairment or loss of function may result in spite of any form of treatment.

At a meeting of the American Medical Association in 1889, I had the honor to present to the surgical section a paper entitled "Suspension and Extension in the Treatment of Sciatica. A New Use for an Old Instrument." (See Journal of Am. Med. Association, 1889, page 446.)

This contribution was based upon an experience of five years, during which I had treated many cases of neuralgia of the sciatic and anterior crural nerves by means of the Hodgen splint. Fifteen years have now elapsed since I first employed this splint in the treatment of sciatica. The results have been so satisfactory that I now use it to the exclusion of almost every thing else.

At a meeting of the North Central Illinois Medical Society in 1891, during the discussion of a paper I presented on the treatment of sciatica, Doctor Freeman reminded me that S. Weir Mitchell had described essentially the same treatment in a

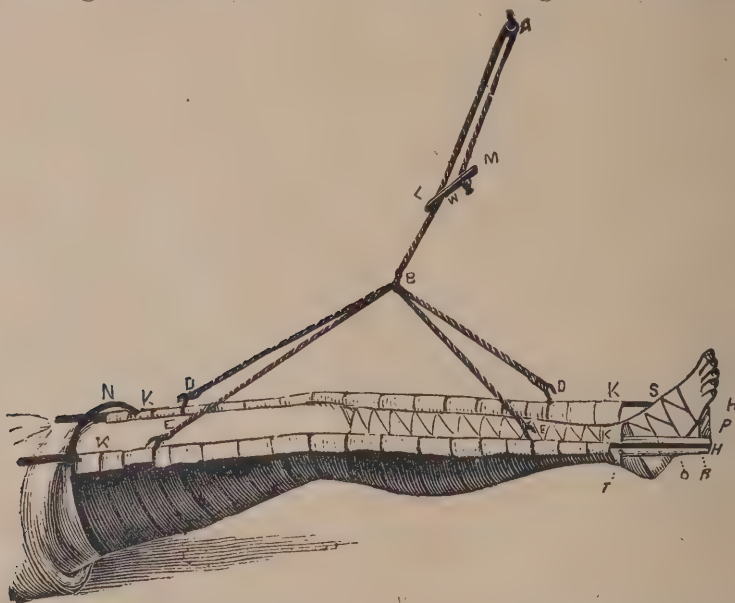
lecture delivered in 1875. So far as I have been able to learn, however, Dr. Mitchell's method was not published until April, 1891, two years after I had reported a series of cases treated by the Hodgen splint as mentioned above. Nor had I ever either heard or read of Dr. Mitchell's method until my attention was called to it in 1891 by Dr. Freeman. Moreover, I only claimed priority in the "New Use for an Old Instrument." I mention this here, not that I attach much importance to the fact of priority,—for this is of small consequence—but for the reason that I would deny absolutely and for all time, the imputation of plagiarism implied in the remark. By reference to the April number of International Clinics, 1891, to which Dr. Freeman called attention, and by reference to Dr. Mitchell's clinical lessons on nervous diseases (1897, page 166) it will be seen that the distinguished author applied wire, or moulded splints, or a straight splint from axilla to foot, with the view of "checking motion at the hip and knee." This partial immobilization he regards as the "essential matter." Now, it will be seen that by the Hodgen splint these joints are far from immobilized. Normal functional motions, that is to say, those movements which are the results of the action of the muscles of the hip and thigh over which the great sciatic nerve presides, are set at rest; but *passive* motion, especially at the hip joint, is scarcely interfered with. The patient rarely or never complains of pain upon passive motion, after the Hodgen splint is properly applied as I have demonstrated in scores of cases. We may therefore conclude that immobilization of the joints, either partial or complete, is not the "essential matter," but that *functional repose—physiological rest—is the essential matter* in the treatment of these cases. The main question for us

*Read at the 49th Annual Meeting, Cairo, May 18, 1899.

to decide when called upon to treat an intractable case, that is to say—an acute or chronic case not yielding to other measures after 4 or 5 days, is—what form of apparatus promises the best and most speedy results with the least discomfort to the patient. It may be justly said against any one of the splints advocated by Dr. Mitchell, that it is cumbersome and uncomfortable to the patient. This is especially so of the long, straight splint. It is in the way when the bowels move, and, naturally, does not admit of passive motion or massage, both very important aids in some cases in the later stages of the disease.

can be quickly, conveniently or painlessly utilized.

Now a few words about the application of the Hodgen splint. It was first devised by the late Professor John P. Hodgen, of St. Louis, during the war of the rebellion. Its object was, originally, to maintain apposition of the fragments of the thigh while the wounds were being dressed. It consists of a rod of iron $\frac{3}{8}$ inch in diameter, bent in two places at right angles, so as to form two nearly parallel arms united by a transverse bar, (See "H H" in figure), the whole of sufficient length to reach from the hip joint



None of these objections can be brought against the Hodgen splint. The latter admits of passive motion, etc., at all times; the patient can move from one side of the bed to the other at pleasure or turn slightly on the opposite side without interrupting functional repose of the parts involved in disease; the back is relieved from the evils resulting from long continued pressure; the toilet of bed and body can be arranged with the least possible discomfort and the patient is made all around comfortable and hopeful because clean and free from pain. With the long straight splint reaching from axilla to below foot, or with any other fixation apparatus, not one of these advantages

to about four inches beyond the sole of the foot. The splint may be slightly bent at the knee to correspond with a little convenient flexion of the leg, and the arms of the apparatus are kept sufficiently apart at their upper ends by a heavy wire bail (N). Strips of roller are passed from arm to arm underneath the limb, fastened by safety pins along the outer arm of the splint and extending from opposite perineum to ankle, so as to allow the limb to rest upon them, as in a cradle. Two strips of Maw's moleskin-plaster having been previously applied to leg from knee to 4 in. below foot, and secured by roller from knee to tendo-achilles, as is

usual for extension of weight and pulley, they are separated below foot by a shallow block, which is made fast to the crossbar of splint, by a piece of adhesive plaster (P). From the sliding hooks "E E" and "D D," run two strong cords which are united at "B" by a 3/16 inch rope, which passes over a hook in the ceiling and back upon itself where it is attached by a tent-check. The limb is raised or lowered by means of this check "W." The suspending rope "A B" should form, with a horizontal line, an angle of about sixty degrees. To prevent patient from sliding down in bed, the foot of bed should be raised about six inches. The extending force may be altered as required, by moving bed in direction of its foot if extension is too great, and vice versa. For adults, especially for those of unusual length, the bed should be seven feet long, with a foot piece which does not reach above the level of the mattress; otherwise the lower end of the splint may press against the foot board and extension cease.

The apparatus can be made in an hour by an ordinary blacksmith. The wearing of it produces no discomfort. The calls of nature can be attended to with the least possible disturbance; patient may even sit in a reclining chair, while his bed is being put in order, and it will do no harm if the suspension is discontinued temporarily now and then while the bedding is being changed, the patient, in the meantime, sitting in a chair with limb (in splint) resting upon another chair. It is well, however, not to take off the tension for this purpose until after two or three days.

While this method may not prove absolutely successful in all cases and under all possible conditions, yet, in the nearly three score of cases which I have treated by it during the past fifteen years not once has it proved a failure. In every case pain was relieved or had entirely disappeared in from one to six hours after the splint was adjusted, and in two weeks they were practically cured. Naturally some weakness of the member, and a slight soreness, especially appreciable upon weather

changes, may remain in some cases for a longer or shorter time after the splint is removed. But upon the whole, either as principal, or as auxiliary to other methods, the Hodgen splint has proven a most valuable agent in effecting the desired results.

The following cases show the method of treatment and results:

CASE 1.

Mrs. K., a young married woman, no children, had pain along the line of the left sciatic nerve for over two years. It was so severe at times as to confine her to bed for several days, and at no time for many months had she been able to perform her ordinary household duties without great suffering. I saw her as an office patient in May, 1884. Her general health was considerably out of repair, owing to chronic endocervicitis, right lateral retroversion of uterus, chronic sciatica of the left side, and anemia. I was inclined to the view that the uterine displacement and cervicitis, with their attendant anemia, stood in direct causative relation to the sciatica, and I accordingly placed her on ferruginous tonics and resorted to such local measures as the nature of the uterine disorders indicated. After several months her general health was much improved; the uterine troubles had disappeared, but the sciatica continued with little or no material abatement. I then subjected her for another two months to the usual routine treatment for chronic sciatica, with no better success. Prior to my seeing her she had been for about eighteen months under the care of a very able physician, from whose treatment she had derived but little benefit. Early in November, 1884, I was visiting another patient at this lady's house. She informed me, on this occasion, that the pain in her hip was worse, that her increased cares had kept her much upon her feet, and she had now become almost helpless from the paroxysms of pain, which tortured her during the day and deprived her of her rest at night. Almost in despair I said to her: "If you will lie in bed two or three weeks and submit to such treatment as I think

proper, I may succeed in curing you. I am not sure how matters will turn out. I have never tried this before, nor do I know of anyone else who has. In any event, it will do you no harm." She was glad to submit to any reasonable means that offered the least promise of relief. I had it in my mind to see what could be obtained by rest and extension, and as I had a Hodgen's splint at hand, it occurred to me that these, together with suspension, could be very readily gained by means of this most excellent apparatus. I accordingly adjusted this splint in the usual manner. In a few hours the pain had entirely ceased. She enjoyed the first good night's rest in over two years. At the end of a fortnight I removed the splint and permitted her to get up; but as a precautionary measure I left the adhesive straps remaining, so that at night, or in case of return of pain, she could attach a ten or twelve pound weight to the limb by means of a cord passing over a pulley at foot of bed, in same manner as we ordinarily make extension in fractures of the lower extremities. This she kept on for three weeks longer, attaching the weight at night. The result was all that could be desired; the pain never returned after the first day. She was discharged cured at end of five weeks. I had the privilege of examining patient recently. She informed me she had been perfectly well of the sciatica ever since the splint was removed, nearly fifteen years ago, June, 1889.

CASE 2.

Henry O. M., a young unmarried man of very irregular habits. Had been a debauchee and lain out nights in a state of drunken stupefaction. Some two years prior to my seeing him, had contracted a severe form of sciatica. Upon examining him, stripped, I found marked atrophy of muscles of left thigh and leg, mobility of the limb much lessened, extreme tenderness on pressure over line of sciatic nerve, general health tolerably good. Had been under all sorts of treatment by all sorts of persons without deriving any material benefit therefrom. He was making a desperate

effort to reform. His circumstances, he thought, would not admit of confinement in bed, and insisted that I try other means first, in hopes that he might obtain relief without being subjected to so severe an ordeal as the wearing of a splint necessarily implied. The interrupted faradic current, massage, nerve stretching, deep local injections of ether, etc., etc., together with such internal medication as suggested itself from time to time during a period of several weeks, were followed by only temporary alleviation. He finally consented to have splint applied, which was done March 11, 1886, at his home twelve miles distant. The first few hours gave great relief, but the dragging pain during the night became so intolerable that he telegraphed me next morning to visit him without delay. Arriving at his bedside, I found that too much tension was the cause of the difficulty, and soon as this was lessened to a proper degree by the removal of the bed a few inches in the direction of its foot, the trouble ceased. He wore the apparatus two weeks, and kept up extension at night four weeks more, when he was discharged cured. I examined him about a year afterward, and found that the atrophy had almost entirely disappeared, his sciatica had not returned, and he had obtained perfect use of the limb. Some months after this he felt so jubilant over his restoration to health that he "took a drink with a friend." This was the initial step towards a grand spree, which lasted until his death, some weeks afterwards.

CASE 5.

Mrs. S., a large, fleshy woman, 55 years old, always in good health except for the last year, during which she had suffered from sciatica, right side. October, 1885, applied the splint, which was removed after a fortnight. Extension by means of weight and pulley continued two weeks longer, at the end of which time patient was discharged cured.

CASE 8.

W. C., blacksmith, sciatica left side, two and a half years' duration. Dipsomaniac.

Acute attack, superimposed upon the chronic, caused by injury while shoeing a horse. Applied splint at once. Relief was immediate. Wore apparatus thirteen days, night extension two weeks. Discharged cured. I examined this case last week, that is, five months after removal of splint. He assured me he was entirely well.

CASE 9.

Mr. S. Y. had been a severe sufferer from sciatica of right leg for over ten years. For last two years has been comparatively free from it, owing, as he thought, to three applications of a strong faradic current. Was thrown from his wagon and sustained an injury of the right hip, inducing an acute attack of great severity. At first he would not consent to confinement on his back; insisted upon the use of electricity, as it had "cured him before." After gratifying his whim in this regard for several weeks, applied the Hodgen, February 1, 1889. By next day all pain in the hip had ceased. Wore apparatus fourteen days, night extension about ten days longer, when he removed the adhesive straps of his own accord, and reported at my office entirely well.

CASE 38.

Mrs. S. was, previous to October 1, 1894, in good health. Was attacked with severe form of acute sciatica on this date. After over a month of suffering and faithful treatment by the usual therapeutic means without material benefit, during which time she positively declined to submit to application of any kind of apparatus that would confine her to bed, finally consented to try the Hodgen splint. I adjusted it November 3rd. Within a very few hours she was free from pain and could bear passive motion at hip joint without suffering. She remarked on my next visit, "How foolish I was not to have this on before." She made a good recovery in two weeks.

CASE 47.

Mrs. B., four weeks pregnant with second child, in good health up to time conception took place. She then began to suffer nausea and vomiting, and proved to be the

most obstinate case of the kind I had ever met with. To add to her affliction, she was attacked with severe sciatica, right side, on August 13th, 1896. On 16th she submitted to application of the Hodgen splint, and within two hours was free from pain. She went on to recovery and was discharged practically well in two and a half weeks, though varicose veins and considerable edema of leg necessitated the use of careful bandaging for several weeks longer. She had a normal labor March 10, 1897, and has had no return of her sciatica since splint was applied.

CASE 55.

Miss N. M. was compelled to give up her school on account of severe pain in left hip and left sacral region. It required several weeks internal and local medication before she would consent to have splint applied. It was put on February 2, 1899. Wore it fourteen days and then got up and about, practically well. Some discomfort is complained of upon going up or down stairs, or preceding change in the weather. Aside from this she has been free from suffering since the first day on which splint was adjusted. These cases, I trust, are sufficient to show the great value of this method of treatment in the class of cases referred to. To add some fifty others treated in the same way with practically the same results is unnecessary.

WHY AND WHEN OPERATE FOR APPENDICITIS?*

BY W. F. GRINSTEAD, M. D., CAIRO.

These are questions which most members of this association have been called upon to answer and some of us have had propounded many times. Many of us will surely have these problems confront us before our next meeting. These facts are sufficient cause to lend interest to a discussion of the subject at this time. The public are taking a lively interest in appendicitis and appendectomy. The daily

*Read at the 49th Annual Meeting, Cairo, May 18, 1899.

papers have much to say and the people read these articles with rare interest. They turn to their physicians for further information or to verify what they have read and have a right to expect of them up to date knowledge of what appears to be a new and very dangerous malady. It is not a new disease but an advanced scientific light turned on to an old disease.

Many of us who insist that we are yet young can remember when we and our colleagues had much to say about typhlitis and perityphlitis. It was considered and treated as a medical disease. Physicians who made no pretensions to surgery, seldom called a surgeon to their assistance. Some cases showed diffuse inflammation at the physician's first visit. These were diagnosed as idiopathic peritonitis. Now, we seldom hear of idiopathic peritonitis.

I have a rule which I recall when I find myself confronted by the last named disease. If the patient is a male I suspect his appendix, if a female I suspect her tubes. It is difficult for me to recall a case which, in recent years, I diagnosed idiopathic peritonitis. I do not overlook the fact that females have appendicitis, but they more frequently have salpingitis.

Perforating ulcer of other parts of the intestines, than the appendix, and internal obstructions must be differentiated, but the history of these cases, the pulse, temperature and collapse will serve to clear them up. When the diagnosis of appendicitis is announced the physician at once is besieged by a number of interrogatories from the anxious family and friends. Is it ever treated as a medical disease? Why operate? When operate? Is a very poor scape-goat from this dilemma, to get up on one's professional dignity and say: "You seem to question my understanding of this case, or ability to conduct it properly." Such is a stupid subterfuge for ignorance.

Yes, it is sometimes treated as a medical disease and with success temporarily. Usually, however, this treatment must be done over and over again. A patient may be carried through a half dozen attacks medically and then die under the same treat-

ment in the seventh attack. An intelligent lady patient asked me, recently, if it was true that surgeons preferred to wait till a patient recovered from appendicitis and operate during health? Yes, was my reply. These truthful answers to leading questions lead patients into dangerous confusion and delay and are very embarrassing to the surgeon.

No doubt, many deaths will result from these admissions. The physician himself, who shrinks from surgery, takes refuge under them. The patient terrorized by the thought of having his belly ripped open, hastily seeks the same refuge. What then is the surgeons duty? He should impress the fact that only one form of appendiceal inflammation is amenable to medicinal treatment and that these recoveries, in most cases are only temporary. In the end most of them, must submit to abdominal section or succumb to septic peritonitis.

Admitting that an operation during the interval of health is safer in catarrhal or medical form of the disease, the physician should hesitate to commend such procrastination for the most excellent reason that when the patient is well, he will not listen to the suggestion of having his appendix removed. He will wait for another attack which may be of the perforative or gangrenous form, and beyond the help of the physician or surgeon, or their combined efforts. Like the Arkansaw squatter who could not put a roof on his house while the rain poured, and when the weather cleared up, no roof was needed.

There is one problem about which all minor issues revolve, and compared with which all other considerations are subordinate. Is the inflammation simply catarrhal or is it perforative? Our best discriminating judgment should be focused on this point! If the former, treat medically. If the latter treat surgically. If the medical case recurs it should be considered surgical and operated in the health interval, unless the recurrence assumes perforative form leaving no time to wait. If perforation occurs, with or without gang-

rene, it means diffuse septic peritonitis or abscess. If the former, we may ask the family if they want their spiritual adviser. If the latter we know that the enclosed pus will find exit somewhere. We further know that it seldom finds its way through the abdominal parietes. The resistance is too great. It should be remembered that the abscess is in the peritoneal cavity in almost all cases and recent adhesions, only, prevent its diffusion.

In all other directions, normal membranes and muscular strata must be eaten away, therefore recent adhesions are more likely to yield, permitting invasion of the general cavity. Even if the intestinal canal, the bladder or pleura are entered by perforation, the result may be fatal or subsequent laparotomy necessitated to close sinuses. We have now seen why operate for appendicitis.

When to operate will continue to perplex and worry us. To operate in every case of appendicitis does not meet the approval of the concensus of opinion of the most experienced surgeons. Not to operate at all yields a frightful mortality.

In two of my operations, perforation had taken place, pus had entered the general cavity, and diffuse, septic peritonitis had developed. The cavity was thoroughly irrigated and drained, but no benefit whatever followed. I doubt if I could be induced by the physician, patient or his family to operate on such a case again. The neutral results and disappointment are too depressing. Furthermore the operation is brought into disrepute. The people are terrorized by the mortality and suspect the operation of being responsible. They are deterred from it in other cases which are almost certainly curable and lose their lives as a consequence. The almost hopeless procedure, thus indirectly, may be responsible for many lives that might be saved by well-timed judicious operative interference. I believe the surgeon may well pause and seriously consider his responsibility from this point of view before opening a belly in which septic peritonitis (diffuse) has already developed. If at the

third or fourth day the temperature and pulse were improved and tenderness, without tumor, was subsiding I should not operate.

On the contrary, if on the third or fourth day there was no improvement in temperature, pulse, pain and tenderness, I should advise laparotomy. Furthermore, even if temperature and pulse returned to normal, or thereabout, and pain subsided, yet a well defined tumor could be outlined in the caecal region, I should advise operation.

Last spring, just before leaving home for a three months' absence I was called to a case of this kind in consultation. Patient had suffered severely for three or four days with pain in right navel region. Tenderness, nausea and vomiting, frequent pulse and elevated temperature had accompanied the pain. On my arrival at the bed side, all these symptoms had practically subsided. Patient was quite comfortable, but, on palpation a distinct tumor, large as a lemon could be detected in right iliac region. Appendicitis was the diagnosis. In the consultation, the verdict was unanimous, to await developments.

Shortly after my return after a lapse of three months I met the husband of this patient who told me that a day or two after I saw her, all the symptoms above mentioned returned with increased violence. The swelling enlarged and abscess formed which perforated the abdominal walls and patient was now a bed ridden invalid, having daily fever and a sinus discharging pus. Clearly this patient should have been operated, but at the time of my visit, the suggestion of an abdominal section would likely have been scouted by the patient and her family.

CONCLUSIONS.

1. If catarrhal appendicitis can be diagnosed and acute symptoms begin to subside by third or fourth day without tumor or boardlike hardness remaining, it should be treated medicinally.

2. If a recurrence, with the same train of symptoms present, it should also be treated medicinally, but an operation

strongly urged in the interval of health immediately succeeding.

3. If, about the third or fourth day there is no improvement of symptoms; it is reasonably certain that they will grow worse and an operation should not be delayed.

4. If at the beginning of an attack, perforative appendicitis can be diagnosed, having followed a train of trifling symptoms which patient has disregarded an operation should be advised at once.

5. If severe symptoms subside about third or fourth day and patient appears convalescent, except a circumscribed induration in caecal region, it is safest to conclude we have a localized peritonitis from perforation, that abscess or diffuse septic peritonitis must follow. We should advise laparotomy.

DISCUSSION.

DR. CARL E. BLACK, Jacksonville: Mr. President—This paper should not pass without discussion because the position taken by the essayist is a little different from what we have been in the habit of thinking about appendicitis. My experience, not large as compared with others, in something over fifty cases of appendicitis has been this: all acute cases operated on before suppuration has taken place have recovered; all chronic cases operated on before suppuration has occurred have recovered; all suppurative cases that had encapsulated abscesses have recovered. The cases that have died are those that had general peritonitis, diffused abscesses, or abscesses that were not thoroughly walled off. The object of the surgeon should be to save the greatest number of lives and to prevent the greatest amount of suffering, and the question is simply how these two points can be accomplished with most certainty. If we operate early in every case before suppuration takes place, every case will recover; the mortality will be *nil*. It seems to be a settled question as to when to operate. There is another point, however, that embarrasses us, and that is a majority of the cases that surgeons have are referred to them by physicians. Then, the surgeon determines the time for operating to our great embarrassment and true right in the case. I think papers on appendicitis should be read for a time in the section on general medicine rather than in the section on surgery, because the surgeon embarrasses the general practitioner in relation to these cases. The surgeon knows from his experience that cases operated on early, say within twenty-four hours or forty-eight hours, before suppuration takes place, all recover, without exception, if properly operated, and the cases that die are those that are allowed to go on, or are watched for

several days or a week, when urgent symptoms appear, and they are taken to surgeons for operation. A certain per cent of those cases will always die because of general peritonitis, and I think the surgeon is justified sometimes in refusing to operate and in saying that he declines to accept the responsibility of operating at that stage upon a case of appendicitis, when he knows that if he had had an opportunity to operate in the beginning when there was no suppuration the patient would have recovered, while at the stage in which the patient is brought to him, death is almost sure to occur. I just wanted to make that point about operations for appendicitis because I think the matter is becoming very well defined in the minds of surgeons as to when to operate for appendicitis. We should operate at once before suppuration has had time to take place, then the cases will recover.

DR. FRANCES DICKINSON, Chicago: While I am not a surgeon, it seems to me that there are some reasons why and when surgeons should operate on cases of appendicitis. The last speaker said, if I understood him rightly, that he would operate before suppuration takes place. Granting that, what are the chances for recovery if an operation is not done? When you are sure that infection will not enter from without, which is the better thing to do? If you have a boy or a young man to deal with, who has previously been in good health, and you watch him through the attack, even if suppuration does occur; nature walls off the pus by covering up the lymphatic spaces, so that many of the cases get well without operative interference. Furthermore, surgeons do not hesitate to let a patient recover from an acute attack of appendicitis before undertaking an operation, if they are reasonably sure that they can carry the patient through, and then in the interval they operate with safety, because if infection does occur from without there is no chance for it to empty into or invade the peritoneal cavity. Whenever in our society meetings we say this or that ought to be done, pathological reasons should be given for it. We should know when, as well as when not, to operate.

DR. DENSLOW LEWIS, Chicago: I want to call attention to the operative technique which is of very great importance in determining mortality in cases where operation is imperative, or in cases where an abscess has formed and an abdominal section is made, it is found on incising the abscess cavity that pus is present. Now, a great many surgeons, if they are wise, will stop there and content themselves with putting in a drainage tube. They may release the kinks of intestine possibly or break down the adhesions that have formed, and if the abscess cavity is walled off the general peritoneal cavity is protected, and they can content themselves by incising the abscess and introducing a drainage tube. In such cases the patients are liable to live; the pus will be discharged gradually. Possibly peroxide of hydrogen may be employed, or the abscess cavity will gradually close and ultimately be obliterated. If it does not, there is a possibility of making counter-

drainage, as several members of the Society have done to my knowledge in certain cases, and as I have done a number of times, so that the pus may be thoroughly evacuated and proper irrigation resorted to. The temptation in such cases, after the incision has been made, is to remove the appendix, and in certain cases where that is done patients die, as I know to my sorrow in my early experience in these operations. I remember one case I operated on with the assistance of Professor Edmund Andrews where, after I had made the incision, the appendix floated out in the pus. It had become gangrenous, and I know in our attempts to remove the appendix in these cases oftentimes the walls of the abscess cavity are broken down, the peritoneal cavity becomes invaded, and then we have a diffuse peritonitis which is almost invariably fatal. I would caution you, then, in the technique of the operation to let well enough alone; that such abscess or abscesses are usually extraperitoneal, and that our chief effort should be to maintain an extraperitoneal relationship. I would caution against doing too much, because in our attempt to do too much we very often have occasion to do more than we expect, that is, we have to sign a death certificate.

DR. GRINSTEAD (closing the discussion): With reference to the remarks of the last speaker, I have nothing to say except that my paper did not treat of the technique of appendectomy. I did not discuss the treatment of the disease, only the wherefors of operative interference.

Referring to the statements made by the first speaker, I think he places more responsibility upon the surgeon than I think he ought to carry. Now, I should not like for people to believe that there is no reason why a patient should die who has had his belly opened, if it has been done properly; I would not like, in other words, for the people to think that when an operation is not successful it is the fault of the surgeon. I do not believe that the abdominal cavity can be invaded with impunity in all conditions, as stated by one speaker. I believe the best authorities intimate to us that we may expect a death rate of a certain per cent from operative interferences. We know that we have the streptococcus in and about the appendix, and we know, furthermore, that we must pass through the general peritoneal cavity in order to make an appendectomy in those cases, except where an abscess has already formed, and even with all the care we can exercise we will sometimes have an infected peritoneum from the operation. Our best authorities tell us that many patients, who are doing well, immediately go to the bad as soon as the abdomen is opened. Now, if the public are imbued with the idea suggested by the first speaker, that if the operation is done right the patient will surely live, there is no other conclusion left for them than that the surgeon did not do his work properly if the patient should die. I do not think the profession generally ought to carry that much responsibility.

THE MEDICO-LEGAL ASPECT OF BRIGHT'S DISEASE.*

BY COLUMBUS BARLOW, M. D., ROBINSON.

It may be regarded as a fact that within the last few years the cerebral symptoms of Bright's disease have attracted more attention than formerly.

As a result many cases of insanity have been reported and the medico-legal aspect of kidney disease has attracted some notice. It may also be regarded as a fact that the opinions of judges more nearly approximate the views held by physicians on the perplexing questions connected with legal medicine than formerly.

It may also be presumed that in the future the various mental disturbances observed in the different forms of nephritis will be more frequently the cause of litigation than in the past.

It may be accepted as a fact that in the majority of cases of Bright's disease there is but little mental disturbance at any time during the course of the disease, unless it be near the closing scene.

In the minority of cases mental alienation exists from the mildest manifestations of mental weakness, mild delirium, stupor and coma, to actual insanity with marked homicidal and suicidal tendencies. Insanity is most frequently observed in chronic cases with contracted kidney, cardiac hypertrophy with a tendency to dropsy and the resultant effects of imperfectly purified blood upon the nervous system. In these cases valvular lesions, arterial degeneration, apoplexy, aphasia and cerebral softening are sometimes observed, and of course give rise to more or less mental disturbance. Uremic poisoning is the chief disturbing factor in these cases.

The cerebral symptoms of uremia vary from somnolence and mental stupor to profound coma; and from mild delirium to marked mania, from slight muscular twitchings to the severest convulsions, and visual

*Read at the 49th Annual Meeting, Cairo, May 18, 1899.

disturbances from a mild type to complete amaurosis. Insomnia and intense headache often occur, and in apparently mild cases are ominous of intellectual instability.

The medico-legal questions involved in these mental disturbances are criminal responsibility, personal liberty, testamentary capacity and such allied questions as the power to manage property, make deeds, sign promissory notes, etc.

When actual insanity exists the same rules are applicable as would apply to ordinary forms of insanity, both in regard to responsibility and testamentary capacity.

It goes without saying that many of these cases are quite interesting from a medio-legal standpoint, and that the civil issues involved are numerous and are liable to attract the attention of courts of law.

The time allowed for this paper will not permit a discussion of all of these questions. We will therefore consider testamentary capacity only.

Judging from former legal decisions, a very limited degree of intelligence is required to legally dispose of one's property, for the requirements are a knowledge of one's possessions and the objects of one's bounty.

Clouston says: "It may be held as proven by legal decisions that a lesser amount of mental capacity is needed for making a valid will than for managing property or enjoying personal liberty." That this statement is true there can be no doubt, as many cases are on record of valid wills being made by people whose mental capacity,—if the actual facts could have been known—was almost destroyed. Insane patients have made good wills during the so-called "lucid intervals." Patients with insane delusions, not affecting the provisions of the will, have been held to have possessed testamentary capacity. Wills made in extremis have been held to be good. Very facile people have made good wills; and suicides have made good wills immediately before committing the act. In view of these facts the amount of mental

capacity necessary to dispose of one's property must be very limited indeed. It would appear from the foregoing that a lesser amount of mental capacity is required to dispose of one's possessions, than to manage one's property or to dispose of a portion of it.

If we are to be governed by the above precedents, then I would say, that in the great majority of cases of Bright's disease the testamentary capacity is unimpaired. But even then there would remain a number of cases of undoubted mental alienation, not only in those cases in which actual insanity exists, but the numerous cases of disturbed mentality the result of uremia and other conditions which we all know exist in the advanced stage of kidney disease. If, however, we are governed by the more recent views upon this subject, we will find that the man who would dispose of his property by will must possess sufficient knowledge to understand all of the provisions of the will and its effects upon those entitled by the ties of nature to share his bounty, whether they are, or are not, made devisees under the will.

I take the following from "Legal Medicine," by Allan McLane Hamilton. "Erskins charge in the case of Harword vs. Baker was as follows: 'Their lordships are of the opinion that in order to constitute a sound disposing mind a testator must not only be able to understand that he has by his will given the whole of his property to one object of his regard, but he also must have the capacity to comprehend the extent of his property and the nature of the claims of others whom by his will he is excluding from all participation in that property; and that the protection of the law is in no case more needed than it is in those where the mind has been too much enfeebled to comprehend more objects than one, and more especially where that object may be so forced upon the attention of the invalid as to shut out all others that might require consideration.' With regard to proof of a disposing mind an English judge (Brett) said that: 'It was not sufficient for the testator to understand merely

that he was making a will, but they (the jury) had to say whether at the time the will was made, the testator had sufficient intelligence to understand substantially the state of his family and of his affairs, and the disposition of his property as made by the will, and if he had sufficient power of mind to intend to make such disposition."

Clouston says that: "Lawyers and the public are apt to regard the naturalness and reasonableness of the will as being an absolute test of whether it should stand. In fact are the whole motives of the man who made the will, sane, reasonable and uninfluenced by morbid motives? Is it a natural will in the circumstances? Is it the act of the man himself exercising his own will spontaneously?" If we apply these rules to the testamentary capacity in nephritis we would certainly find a great number not possessing disposing power. There are reasons for believing that the so-called "lucid intervals" of the older writers do not exist.

There are also reasons for believing that many of the wills that have been upheld by the courts were made by people who were non-compos mentis. A careful inquiry into the mental condition of such patients by competent physicians would prevent many such mistakes in the future. To the superficial observer many insane people appear to be perfectly sane. Even physicians may be deceived in this way if they do not exert the greatest scrutiny. Clouston gives an example in point here. The man was sensible looking and gave no evidence of mental alienation until asked for a statement as to the amount of property he had to bequeath. The man astonished him by saying that he was worth one hundred thousand pounds which the doctor knew to be quite impossible and no will was made. Testamentary capacity is frequently destroyed by the mental disturbances that arise during the course of many diseases. This is notably so in Bright's disease, and as a result questions as to the disposing power may arise where insanity does not exist. Mental weakness, the result of uremic poisoning; and the various

pathological conditions that may arise during the course of the disease, may beyond doubt exist to a degree that will incapacitate the individual for making a will.

About two years ago a widowed lady died in our town of Bright's disease. She left a will bequeathing the income of her entire estate to her son—her only child. Provisions were made in the will for her granddaughter and other near relatives in the event of her son's death. All these provisions were quite natural except that she failed to provide for her daughter-in-law. The will seemed to be quite a reasonable one in the circumstances, with perhaps a single exception. It did not however meet the approval of her son; and he instituted proceedings to contest the will, on the grounds that his mother was incapacitated by reason of the existence of uremia and melancholia the result of Bright's disease.

At the time she made the will she had no medical attendant; but employed one some three or four weeks subsequently. He attended her for about four months. She then came into my hands and was treated by myself and partner, Dr. Firebaugh, until her demise two months later. In the trial many of the neighbors were put upon the stand and gave conflicting testimony. They were about equally divided as to their views.

The first physician who saw her testified that he believed she was of sound mind and memory and was competent to dispose of her property by will, during all the time she was under his care. He stated that she suffered severely from uremia, but believed her mental integrity was not seriously impaired. I testified that I did not believe her competent to make a will the first time I saw her, nor at any time thereafter. My partner, who did not see her for a week or two after I first saw her testified that she did not possess testamentary capacity at any time he saw her, which was quite often in the latter part of her illness. As to the question of her probable capacity at the time she made the will, we both testified that she might have been

competent at that time. We also stated that in Bright's disease not too far advanced the patient might be incompetent at one time and competent at another, or in other words, comatose at one time and quite rational at another. Another very competent medical man stated that he did not believe from the evidence given that the testatrix possessed testamentary capacity at the time the will was made nor at any time thereafter. The hypothetical questions presented by the opposing attorneys were very ingenious; but were of little value in establishing the real facts in the case. The will was sustained and no appeal was taken.

Uremic symptoms were marked in this case and there was great mental instability from the time I first saw her. She suffered severely from dyspnoea and could not assume the recumbent posture, but occupied a half sitting position most of the time, cardiac disturbance was well marked and there were evidently some organic changes. Intense headache existed most of the time. Her vision was very poor, and at times complete amaurosis existed. She had apparently lucid intervals, when, to the casual observer, she seemed to be rational, at other times she had illusions, hallucinations and delusions. Sometimes she was mildly delirious, at others almost comatose and entirely so for two or three days before her death. Muscular twitchings were very noticeable and she had recurrent hemiplegia during the latter part of her sickness. The urine was loaded with albumin and contained numerous tube casts. Dropsy was well marked throughout her sickness despite efforts to remove it. During the last few days of her illness she was absolutely unconscious. When I first saw her and for several subsequent days she appeared to be rational, but a test of her mental powers convinced me that she was in reality not so. I undertook to learn from her own lips the history and course of her disease, and not only made a single effort, but tried repeatedly. She could give nothing like a connected history of her case, and I came to the conclusion that she was not rational. If she could have

recovered I am quite certain she would have had no remembrance of that period of her sickness.

Only a few days ago, two of my medical friends and myself were called to see a lady suffering from the effects of puerperal infection. We all examined her and conversed freely with her. She seemed to be quite rational and we left her seemingly in good spirits. We did not suspect that her mind was in the slightest degree impaired; but the fact is she was not conscious. A day or two later symptoms of uremia developed, and an examination of the urine revealed the fact that she had nephritis. She gradually improved, and when she became fully conscious had no recollection whatever of our visit nor anything else that had happened for several days.

It would appear then, that any person suffering from the effects of nephritis, especially if the cerebral symptoms are at all marked, should have his mental capacity tested by a competent physician before making a will, and that physicians treating persons suffering from nephritis should carefully study the mental condition, so that in the event of being summoned to appear before a court they could intelligently testify in regard to the mental condition of the patient.

DISCUSSION.

DR. I. N. DANFORTH, Chicago: I have been much interested in this paper because it opens up a new field for us. The principal point of the paper, it seems to me, is the question of mental disturbance with especial reference to testamentary capacity in Bright's disease. My experience with persons affected with Bright's disease has been that the mental capacity is not much disturbed in a large proportion of the cases. Towards the last, when coma takes place, it is likely to be disturbed. I recall one case which occurred ten or fifteen years ago, a woman, in which I was called in consultation with Dr. Brower, and the patient was comatose at the time. She regained consciousness and afterwards made her will. A few days after she died. Her will was never questioned, neither was her testamentary capacity, although there were several heirs.

I saw another case, that of a man of fifty, whose mind was perfectly clear throughout the whole course of the disease. This was an exceptional case, and clearness of mind does not pertain to most of these cases.

I recall the case of a young man, quite recently, who had interstitial nephritis. He was a business man, and, as far as I know, led an excellent, exemplary life. But suddenly he was filled with peculiar delusions. He had the delusion that somebody was after his money, when, as a matter of fact, he had very little. His attacks were acute, sudden, and disappeared as quickly as they appeared, so that now he has resumed his work and his mind is as clear as it ever was. This is an unusual case. I can recall half a dozen such cases as that; but my observations teach me that impairment of mind is quite the rule in the progress of Bright's disease.

DIAGNOSIS AND CLINICAL COURSE OF PUERPERAL ECLAMPSIA.*

BY FRANK B. EARLE, M. D.

Professor of Obstetrics, College of Physicians and Surgeons, Chicago.

The diagnosis of an eclamptic seizure is usually not a difficult matter. The diagnosis of the pre-eclamptic state is much more important and sometimes a much more difficult problem. The older writers attached no special significance to these convulsive seizures as they occurred in pregnant and parturient women and dismissed the subject with the simple proposition that they were either hysterical or epileptiform in character. Since the time of Hippocrates, who as near as we can learn was the first to use the term eclampsia, until a comparatively recent period this opinion prevailed. However, since the etiology of the disease has been more carefully studied we have learned not only to differentiate an eclamptic seizure and to conclude that it is not dependent upon these allied conditions, but is an entirely distinct variety.

Although the question of etiology is still *sub judice* it is possible for us to make a differential diagnosis and to attach such importance to the symptoms that we may judge with reasonable accuracy the clinical course of the disease. Upon the early recognition of the conditions leading to eclampsia depends the successful management to both mother and child. We must

in the very beginning acknowledge that the pregnant state is, in a sense, a pathological one. We must never lose sight of the fact that the emunctories are called upon to accomplish additional labor, that under certain conditions excretion is imperfectly performed and that as a result the blood and nerve centers are poisoned, that this toxemia manifests itself in a train of symptoms that are unmistakable, that the condition is a remediable one and that if permitted to continue will frequently lead to an eclamptic seizure. It is imperative, therefore, that the manifestations of the pre-eclamptic state or the toxemia of pregnancy be given very careful attention. Inasmuch as at the present time we regard this condition one which is the result of the retention of one or several toxins, associated with scanty urine, torpidity of the skin and intestinal tract, and one which is marked by serious blood changes and disturbances of the nervous system we must carefully consider the importance of some of the manifestations which are dependent upon these pathological conditions.

The writer has personally observed ten cases of eclampsia and more than an equal number of toxemia of pregnancy, and has observed that one of the earliest and most persistent symptom is headache. Many times this headache is associated with anemia. It is intense in character and located by the patient in the anterior portion of the head. The headache which is a manifestation of the pre-eclamptic state is frontal or unilateral; it is rarely, if ever, occipital. Its intensity is so marked that the usual means of relief are inefficient and absolutely worthless. With this headache is associated insomnia. This is persistent so that the patient is unable to sleep perhaps for a period of several nights. Associated with the headache is a condition of irritability which, in the average patient, is so different from her usual condition that it alone directs the attention of the observing obstetrician to the underlying condition. The mind is fruitful in forebodings of evil. Ofttimes there is a tendency to melancholia. There is tinnitus aurium, vertigo and amnesia. The condition of the

gastro-intestinal tract is also of great value. There is a history of persistent constipation. There is anorexia, sometimes vomiting, although the vomiting does not occur as a rule until the patient is markedly toxic. Very much importance should be attached to the epigastric pain. Sudden pain in the epigastrium in a patient in the latter months of pregnancy should be regarded as a very significant feature. The urinary secretion is usually very greatly diminished. The urine is of high specific gravity and often, but not always, contains albumen, and if examined microscopically will sometimes be found to contain granular and epithelial casts. That a patient may have eclampsia without albuminuria has been abundantly demonstrated; also that patients may have a large quantity of albumen in the urine without an attack of eclampsia, so that too much diagnostic importance cannot be attached to the urine. The urine of all pregnant patients, however, should be frequently examined, as by this means we are able to judge of the degree of intoxication and elimination.

With the above symptoms will in many instances be found edema. It may be slight, confined to the lower extremities, possibly the eye lids, and sometimes the face, but in cases markedly toxic not only the extremities but the genitals, abdominal walls and the upper part of the body will be found edematous.

PHYSIOLOGICAL ALBUMINURIA.

Atenstadt's observations oppose Freich's view that where there was "no albumen, no eclampsia occurs." Wunderlich states that not only are there no convulsions in many dropsical patients, and in those suffering from Bright's disease, but convulsions are by no means common even in non-pregnant patients suffering from Bright's disease.

Blot, out of 205 cases of pregnancy, noted albumen in the urine in 41 cases, yet only 7 suffered from eclampsia.

Litzman found albumen in the urine in 37 out of 131 pregnant women, and yet eclampsia occurred in only 12.

As a matter of fact, albuminuria is a very frequent accompaniment of pregnancy, so much so that some authorities regard it as a diagnostic feature of pregnancy and not a pathological condition. If physiological it is slight in quantity and of short duration. During the closing weeks of pregnancy albuminuria is very much more common, so that in the urine of nearly one-third of all cases some albumen will be found. When, however, the urine contains albumen, associated with blood and casts, and is accompanied by the other symptoms of toxemia, it becomes of diagnostic importance.

M. S. Gardener concludes from the relation of albuminuria to puerperal eclampsia:

1. The presence of albumen in the urine of a pregnant woman is not sufficient cause upon which to base a prognosis of probable eclampsia.

2. The failure to find albumen in the urine of a pregnant woman is no evidence of the absence, or, at least, of the continuance of the absence, of the condition that gives rise to puerperal convulsions.

3. Albumen is so often found in considerable quantities in the urine of patients immediately after the appearance of puerperal convulsions that we are justified in making the statement that the convulsions are the probable cause of the albuminuria. (Therapeutic Gazette, June 15, 1891.)

Vinay states that the etiological problem does not depend on the more or less normal condition of the urine, in the presence or absence of albuminuria, nor in the integrity or alteration of the kidney, but in the internal intoxication and the sufficiency or insufficiency of the emunctories. (Archives generales de Medicin Paris, December 1895.)

TEMPERATURE.

Bourneville observed four cases of eclampsia and concludes:

1. In eclampsia the temperature increases from the commencement to the end of the attack.

2. In the interval between the fits the temperature maintains itself at an elevated

degree, and at the time of the convulsions it increases slightly.

3. If the eclampsia is likely to terminate fatally the temperature continues to increase and attains a very high degree; if, on the contrary, the fits cease, and if the coma diminishes or disappears, the tempera-

ture goes down gradually and returns to the normal standard.

He lays great stress upon differentiating the various kinds of uremia from puerperal eclampsia and states that from observations of over thirty cases a diminution of temperature occurs at the commencement in

DIFFERENTIAL DIAGNOSIS.

	ECLAMPSIA.	UREMIA.	EPILEPSY.	HYSTERIA.
HEREDITY.	Undoubtedly influences to a considerable degree.	None.	Variously estimated, 9 to 40 per cent.	Majority of cases are from neurotic families.
AGE.	Any time in Childbearing period especially primipara and more especially old primipara.	Any Age.	Osler says "A large proportion of the cases manifest the disease before puberty."	Rarely before puberty; any time after puberty.
PREVIOUS HISTORY.	Nothing except in multipara possible history of attack in previous pregnancy or history of toxemia.	Of some kidney disorder, headache, vertigo, gastro-intestinal disturbance, perhaps palpitation and dyspnoea; edema.	Of former attacks.	Neurotic taint and former attacks.
MODE OF ATTACK.	Sudden, without warning sometimes during sleep, after characteristic premonitory symptoms.	Suddenly, usually preceded by headache and restlessness.	Suddenly, perhaps with aura, Initial cry.	Follows emotional disturbance may be preceded by laughing, crying and globus hystericus.
NATURE OF ATTACK.	Unconsciousness with tonic spasms lasting 10 to 30 seconds followed by clonic spasms lasting from 1 to 5 minutes or longer. Stertorous breathing, frothy or bloody discharge with expiration. Coma.	Unconsciousness, attacks may be identical with those of epilepsy or eclampsia.	Unconsciousness, tonic spasms lasting few seconds, retraction of head, jaws set, pallor changing to lividity, frothy discharge, tongue bite, coma.	Seldom complete unconsciousness, patient can be aroused by supra-orbital pressure; often fantastic contortions, rarely froths or bites tongue, not followed by stertorous breathing or stupor.
FREQUENCY OF CONVULSIONS.	Exceptionally one, usually several, may exceed 100.	Usually several.	One only.	One or more.
DELIRIUM.	None preceding attack.	Very commonly precedes attack.	None.	None.
COMA.	Lasts 10 to 30 minutes to days or till death.	Indefinite.	Drowsiness or stupor but not coma.	Absent.
URINE.	Scanty, dark, high S. G., highly albuminous, epithelial and tube casts.	Scanty and albuminous with casts.	Normal or trace of albumen for short time.	Increased quantity, pale, low S. G.
EYES.	Negative usually.	Amaurosis for few hours or days, often Albuminuric retinitis.	Negative.	Usually negative, perhaps hysterical field of vision.
PULSE.	Full and strong in beginning fequent and feeble in end of spasm, returns to normal in Coma.	Commonly tense during attack rapid and feeble accentuated aortic 2nd tone.	Negative.	Negative.
TEMPERATURE.	Progressive increase during Convulsions to 103 or 104. In some no elevation, in others sub-normal.	Seldom rises except in progressively fatal cases.	None.	Exceptionally slight.

uremia and an elevation in puerperal eclampsia. As the case nears a fatal issue the temperature in uremia descends below normal, whereas in puerperal eclampsia it rises to a very high degree. (*Archives de Tocologie*, April, 1875.)

Winckel made the same observation in regard to elevation of temperature before Bourneville.

Parvin in his article in the American Text Book of Obstetrics takes exception to the statements of these observers and notes that "in some instances the danger may be imminent, death at hand, without such increase, or the temperature may even be subnormal."

DIFFERENTIAL DIAGNOSIS.

When we have given the pregnant condition, the edema, the scanty urine, together with the characteristic convulsive seizures, we at once suspect puerperal eclampsia, and yet when one is called hastily to see a patient who has not been under observation it may be a difficult matter to say whether the condition is due to toxemia, to uremia, to epilepsy or to an unimportant hysterical seizure. There are a few diagnostic features in each of these conditions which when carefully considered will lead one to a quick and correct diagnosis. Let it be remembered that the preponderance of evidence is decidedly in favor of toxemia and that the convulsions depend upon this particular condition.

TIME OF PREGNANCY, DURATION AND FREQUENCY OF SEIZURES.

Cases of eclampsia have been observed as early as the second week of pregnancy, and as late as the 28th day post partum. By far the greater number occurs in the latter weeks of gestation or in the first stage of labor. Upon this point authors differ somewhat. They are all agreed that the attacks are less frequent after labor, but are about equally divided as to whether

the attacks are precipitated ante-or intra-partum.

	In Pregnancy.	In Labor.	After Labor
Pajot	30	50	20
Goldberg	21	56	22
Hermans	9	2	1
Jewett	Most	Next	Least
Hirst	Next	Most	Least
Kaltenbach	Next	Most	Least

Undoubtedly many a patient is on the verge of an eclamptic seizure when labor is terminated, and the fact that the convulsive seizures are deferred until some time after labor has been completed is due to the lessened arterial tension and the abstraction of a certain quantity of poison in the blood which is lost in the third stage of labor. Free hemorrhage in the third stage of labor in a patient who is extremely toxic is equal in efficiency to the abstraction of an equal quantity of blood by venesection.

Frequency—Rarely one; usually several; occasionally many.

Paquy reports a case of a patient who had 119 fits. (*Archives de Tocologie et de Gynecologie*, April, 1894.)

Kaltenbach, Vinay and Winckel report instances where the number ranged from 22 to 100. The writer observed one in which there were 25 post-partum, followed by recovery.

INFLUENCE ON PARTURITION.

That an attack of eclampsia has a marked influence upon parturition is a fact that has been observed fully by those who have studied the question. It has been abundantly demonstrated that an eclamptic seizure is many times followed by very rapid dilatation of the cervix, and while the patient may not be conscious of uterine contractions they are present and of great force.

Atenstadt's conclusions, which he drew from the phenomena presented by several cases under his care, are as follows:

1. The occurrence of eclampsia is connected with the progress of pregnancy.

2. Acute convulsions with short pauses between them induce labor pains by exciting the uterine nerves.

3. The convulsions of eclampsia are always coincident with very energetic labor pains and an absence during the pause.

"Pregnancy is apt to be terminated shortly, an accident easily understood in view of the shock, nervous disturbance, and uterine contractions. If the seizure occurs in labor, the pains are increased by the general muscular excitement, so much so that the child be born before the physician is freed from his care of the mother." (Edgar.)

INFLUENCE ON FETUS.

Inasmuch as the causes which produce convulsions in the mother are operable upon the fetus, and inasmuch as so frequently the period of utero-gestation is shortened, either by the effect of the seizure upon the uterus or the necessity for artificial delivery, the influence upon the fetus is extremely unfavorable.

INFLUENCE OF PARTURITION ON THE ECLAMPTIC SEIZURES.

It is a peculiar and well-established fact that the influence of parturition upon an eclamptic seizure is beneficial. In a large percentage of cases convulsions cease spontaneously upon the emptying of the uterus. Dührssen notes cessation of convulsions in 90%, while Zweifel's statistics show that the convulsions cease in 52%. (Centralblatt for Gynecologie, Nos. 46 and 48.) A few cases are followed by a continuance of the convulsions, but these are of shorter duration and not nearly so dangerous to the life of the patient. A still more striking feature is found in the fact that if at the time of convulsions the fetus dies but is not expelled from the uterine cavity the convulsions cease and the fetus may be retained in the uterus until the end of gestation or even until a later period.

POST-ECLAMPTIC CONDITIONS.

In the majority of instances the temperature, which has risen during the seizure,

soon reaches the normal standard. In exceptional instances the temperature may remain elevated for several days. If elimination is rapidly re-established the coma quickly disappears and in the course of a very few days the patient is mentally quite herself. In exceptional cases, however, where the convulsions have been numerous and where elimination has been tardy, the coma, delirium, as well as the temperature, will persist for a number of days. A certain percentage of the cases never fully recover.

Albuminuria frequently disappears during the puerperium but may persist for a period of two or three months, or the morbid renal process which has been established during pregnancy may continue so that the patient merges into a chronic nephritis which may follow the usual course.

While the great percentage of cases recover so far as life is concerned, some of them are mentally impaired. Insanity has been noted in about 6% of the cases, according to Olshausen; amnesia in a certain percentage, hemiplegia in a few.

AN UNUSUAL CASE OF PERFORATING GASTRIC ULCER.*

BY C. W. HALL, M. D., KEWANEE.

D. R., an educated female, single, age 23, retired Dec. 25, 1898, at midnight in good health as far as she knew. At 4:30 a. m. Dec. 26 I was called to her bedside and found her suffering most intensely from pain in epigastric region. Pulse 120, temperature 98 4/5°. Medicine failed to relieve. Eighteen months before I had treated her for gastric ulcer, but since that time she had been in good health, had taken no medicine, had worked hard as a domestic every day and had no disturbance of digestion. I made a diagnosis of perforation of stomach due to ulceration. Notwithstanding the lack of stomach disturbance, local and general peritonitis rapidly followed. Shock lasted 24 hrs. Obstruction of bowels due to inflammatory adhesion occurred during third day. Fecal vomit-

*Read at the 49th Annual Meeting, Cairo, May 19, 1899.

ing and hiccoughs lasted till fifth day. Sixth and seventh day milk and ginger ale taken liberally, nausea having entirely disappeared. Eighth day mental dullness and the relief preceeding the end of fatal peritonitis appeared and death occurred on ninth day. Pulse ranged about 100 the entire time, generally above 120. Temperature sub-normal until third day, then ranging between 100° and 103°. The P. M. revealed general peritonitis with adhesions. Found the milk drank on 6th and seventh days in lowest part of abdominal cavity with a sinus as large as a small intestine leading up left side to posterior side of greater curvature of stomach. There found a perforation which I could put my lead pencil through without touching edges. Examination of mucous membrane revealed three other ulcers, one having ulcerated through to peritoneal coat and the others nearly through mucous membrane.

I report this on account of the remarkable history. Four severe gastric ulcers and no history of gastric disturbance. No hemorrhage, dyspepsia, pain or usual symptoms generally looked for.

TWO AFFECTIONS OF THE KNEE JOINT. GONORRHEAL SYNOVITIS: LOOSE BODY IN THE JOINT.*

BY GEO. N. KREIDER, M. D., SPRINGFIELD.

Affections of the knee joint appear to have been especially numerous in my practice, and as a consequence my attention has been particularly called to them. The most interesting of these affections to me are embraced in the title of my paper and I propose to consider them in the order mentioned.

Gonorrheal inflammation of the knee joint may be designated as an infective or metastatic process. It differs from the joint invasions of rheumatism, gout, pyemia, puerperal fever and the acute exanthematic diseases because usually when this joint is invaded no other joints participate in the disease. Why this is so and why the knee

is the joint of selection for gonorrheal disease is probably past finding out, but when this joint is alone diseased the possibility of a causative blennorrhagia should always be canvassed. The grave dangers which may result from a gonorrheal infection have been emphasized in the past few years. We know now that nearly every tissue of the body can be invaded by the gonococcus. It is not always discovered in the exudation when the knee joint is invaded but it has been discovered frequently enough to leave no doubt as to the source of the rheumatism when there is a concomitant gonorrhea.

One of my first cases was a girl of 17, light hair, blue eyes, pale, delicate face, a type of what was formerly called scrofulous. She had been seen by several competent medical gentlemen who had failed to give her any great relief, and who had pronounced her disease tuberculous as did I until I learned of the mistake. When her knee was moved her screams of pain disturbed the neighborhood. I finally gave chloroform, aspirated the joint and injected an emulsion of iodoform in glycerine. I then immobilized it with a plaster cast. This gave some relief. The day after the cast was applied there were suspicious stains upon it which led to some inquiry and investigation proved the existence of a discharge which promptly yielded to appropriate treatment. The joint had been badly damaged, however, and a cure with ankylosis resulted. The ankylosis was in good position and the lady since married has reared a family and attends to her household duties.

Another case was a young woman of 19, admitted to St. John's Hospital after undergoing a course of treatment for a long time outside. The knee joint was extremely painful and enlarged. I recognized the cause of the disease and treated the vaginitis with large injections of lysol solution. The joint was aspirated and injected with the iodoform emulsion and placed in a plaster cast for a number of weeks. Prompt improvement resulted, the intense pain being quickly relieved, but the damage to the joint had progressed too far for a flexi-

*Read at the 49th Annual Meeting, Cairo, May 19, 1899.

ble joint. The leg is serviceable, however, as in the other case. Another case was a middle aged man, who was treated some ten years ago by puncture and washing out the joint with a 2% carbolic acid solution. He recovered with fairly good joint motion.

* * *

One of the most interesting and important affections of the knee joint is that caused by the presence of a loose body in the cavity. No definition expresses the condition so well as that used by the German writers who have given the bodies the name of joint mice, *mures articulares*. They are either free and float in the joint fluid, or attached by long pedicles. They may occur singly and of considerable size or very numerous and small like grains of rice. The specimen which I removed is of considerable size and seems to be cartilaginous with some bony salts deposited in it. They have been known to be as large as a hen's egg. They may occur in joints which have been previously healthy but usually there has been a history of an injury. Prof. König, of Berlin, in a recent paper on this subject before the German Surgical Society says: "the true cause of these alterations, judging from the 70 cases I have treated of the articular surfaces, cannot at this time be precisely stated. Some authors believe the bodies are due to arthritis deformans, a view which I combat, since they are usually seen in young persons and after they are removed the joint remains healthy. Other clinicians see in them only the simple effect of a traumatism and the patients themselves date their symptoms usually from a slight injury or a sudden motion of the joint. It is however probable that the sudden movement or slight injury only served to set free the body which may have been attached to the joint surface by a slight pedicle up to that time." Males suffer more frequently than females. These patients state that they get along with comparative comfort a great deal of the time, but suddenly and without warning they experience great pain in the affected joint, which prevents them from walking and may throw them prostrate and incapacitate

them entirely. It is not always easy to define the loose body and many examinations may be necessary to make certain of its existence. The paroxysmal pains are usually characteristic and of great diagnostic importance. There is also generally a marked creaking of the joint on motion.

The only case I have operated occurred in a Swede aged 28, florid complexion, well nourished, good family history. When a boy 13 years old he had received a kick from a horse on his knee while sitting on a fence. Has had more or less trouble with that joint ever since. In recent years his suffering was so constant that he was unable to perform his usual farm labor. For this disability he had consulted a number of competent surgeons. They had recommended and applied various liniments, counter irritants. The limb had been placed in extension apparatus for weeks. It had been encased in plaster of paris, etc., etc., but without any benefit. At my first examination I found creaking in both knee joints, more marked in the right, this joint being the one which gave him the greatest trouble. I expressed the opinion that a loose body was the cause of his difficulty. I gave an anesthetic and opened the joint at the anterior internal segment. The joint was washed out with a normal salt solution, but the loose body failed to appear. The opening was closed and healing occurred without incident. Stimulation by hot and cold water douches was kept up for some time without improvement. Before leaving the hospital I expressed the opinion that the trouble was due to the loose body and instructed him to keep a lookout for its appearance, and if he found it to come back at once. In a few weeks he returned having located the body on the external segment. I at once proceeded with the operation and removed it. It proved to be about the size of a lima bean. The opening into the joint was closed and in two weeks the patient was allowed to get about. Soon after he returned to work on the farm.

Another case was A. W., aged 26, clerk, in good health, no rise of temperature or acceleration of pulse. He was seen with

a colleague who had been treating him in consultation with others and had applied extension with a six pound weight for a number of weeks, without improvement. He gave a typical history of a joint mouse, and was put on his feet at once. He refused an operation, but with some support was able to get about fairly well. I learn that he still suffers some weakness, but knowing the character of his disability is able to transact his business by using care in the use of the leg. Had not a diagnosis been made he would doubtless have remained in bed indefinitely without any benefit and might have fallen into the hands of a charlatan to the great scandal of the regular profession.

Other cases of this kind have fallen under my notice, but as the histories of all are about the same no history of the individuals is necessary.

My experience would indicate that the profession is not well informed concerning these diseases of the knee joint, usually because they do not make a thorough examination or do not take a complete history of the case. This, however, is the usual cause of mistakes in all our cases. If this short and imperfect paper will serve to call attention to these two interesting affections its purpose will have been accomplished.

CHICKEN-POX (VARICELLA) IN THE ADULT.

Circular of Information Published by the Illinois State Board of Health.

To the Physicians of Illinois:

Notwithstanding the well demonstrated incontestible fact that chicken-pox is pre-eminently a disease of childhood, it is known that during the present wide-spread epidemic of modified smallpox in the State of Illinois and elsewhere, many cases of this disease, occurring in both early and late adult life, have been pronounced chicken-pox. This diagnosis in the majority of instances, seemed to have been occasioned by the mild nature of the present outbreak, which tended to confuse physicians, who were conversant only—in many cases,

through the medium of their text books alone—with the typical form of smallpox, which has usually prevailed heretofore.

The occurrence of chicken-pox in adults is so rare as to have escaped the observation of many of those who have devoted years to the study of exanthematous diseases. That it does occasionally exist during adult life is not denied, but its appearance at this period is so uncommon as to excite comment. All cases of so-called chicken-pox in adults, seen by this Board during the present epidemic presented a well-defined variolous eruption.

In support of the assertion that chicken-pox rarely attacks other than children, and that an epidemic eruption disease affecting adults and children alike is not chicken-pox, the following quotations on the subject, from well recognized text books of unquestioned authority, are hereby submitted:

“Varicella is essentially a disease of early life, occurring almost exclusively in infants and young children.”—Pepper’s System of Medicine.

“Chicken-pox is a disease of childhood and rarely attacks any above ten years of age.”—Practice of Medicine, Bartholow.

“Varicella is a disease of childhood and attacks by preference young children and even sucklings. In children over ten years of age, attacks are infrequent, and I never saw an adult suffering from varicella. Eruptions resembling varicella in adults always indicate variola.”—Ziemssen’s Cyclopædia of Medicine.

“An acute contagious disease of children. It is rarely seen in adults.”—Practice of Medicine, Osler.

“Varicella affects children of all ages, and occurs almost always in childhood.”—Practice of Medicine, Anders.

“Varicella is confined exclusively to childhood up to the age of ten, and is rare after twelve.”—American Text Book of Theory and Practice of Medicine.

“A disease affecting children.”—Diseases of Children, Eustace Smith.

“The variolous disease whether smallpox or varioloid often occurs in the adult; var-

icella on the other hand is a disease of infancy and childhood. I have seen one case in adults, but its appearance at this period of life is rare."—Disease of Children, J. Lewis Smith.

"Varicella is an acute epidemic contagious disease, occurring generally in children."—Practice of Medicine, Hale.

"A disease which chiefly affects children."—Practice of Medicine, Loomis.

"A disease of childhood."—Reynolds' System of Medicine.

"An acute specific disease peculiar to infancy and childhood. In children over ten years of age the disease is rare, while in adult life it is so infrequent that many observers of large experience have never met with it. Varicella is particularly a disease of infancy and early childhood. Any varicella-like eruption in an adult should be looked upon with the greatest suspicion and the patients strictly isolated, until by the history of the case, its source and the course of the disease, all doubt as to the diagnosis is dispelled."—Keating's Cyclopædia of the Diseases of Children.

"A disease of childhood."—American Text Book of Medicine.

"Varicella affects children."—Diseases of Infancy and Children, Holt.

"In chicken-pox the eruption appears on the first or second day, * * * * * the *child* remaining but little indisposed * * * * * Neither do the vesicles become pustules unless * * * * * or the *child* is in a condition of debility or suffers from struma. Varicella is separated from variola by * * * * * and finally by the fact that it attacks *children*, who have been well vaccinated, whereas small-pox does not."—Practical Diagnosis, Hare.

"After nineteen years of age the disease may be said to disappear as it is only occasionally seen in adults."—Dictionary of Medicine, Quain.

"Chicken-pox is a disease of children mostly, the age of maximum incidence is from three to four years."—Allbutt's System of Medicine.

"Chicken-pox is a disease of early childhood * * * * *. If, however, small-

pox is prevalent in the neighborhood, any case presenting symptoms assumed to be those of chicken-pox should be regarded as suspicious, especially if the patient be an adult."—Handbook of Hygiene, Wilson.

"As a rule very young children are attacked by chicken-pox."—Twentieth Century Practice of Medicine.

"Chicken-pox is almost purely a disease of childhood, occurring between the second and sixth year."—Practice of Medicine, Tyson.

"Varicella continues to be a common disease all through the early and middle years of childhood. The susceptibility of the contagion of varicella lessens after ten years of age and almost disappears at puberty."—Pediatrics: The Hygiene and Medical Treatment of Children, Rotch.

In conclusion, the State Board of Health desires to emphasize the necessity for the observation of the most stringent precautions in every case of eruptive disease, particularly one resembling chicken-pox or small-pox. The failure of a physician to readily recognize smallpox, or a neglect to recommend the adoption of extraordinary care in all cases of a suspicious nature, may at any time cause the beginning of an outbreak in a community, entailing much sickness and loss of life, panic, interruption to travel and depression of business, and a financial loss impossible to estimate. The most rigid quarantine and isolation is recommended in every case concerning which there is the slightest uncertainty, and the maintenance of such until all doubts are set aside. Especially should a varicella-like eruption in an adult be regarded with great suspicion. It may not be smallpox; it is extremely unlikely to be chicken-pox.

Of Puerto Rican chicken-pox," so many cases of which have been reported in Illinois and other States recently, little need be said. No sanitary authority has knowledge of any type of varicella which is peculiar to the island of Puerto Rico. Every case of "Puerto Rican chicken-pox," "Cuban itch," "elephant itch," and "elephant chicken-pox" seen by the officials of this Board during the past three months was found to be smallpox.

The Illinois Medical Journal

PUBLISHED MONTHLY.

Official Organ of the Illinois State Medical Society.

Committee on Publication:

E. W. WEIS, M. D., Chairman, Ottawa.
H. N. MOYER, M. D., Chicago.
G. N. KREIDER, M. D., Springfield.

All communications should be addressed to E. W. WEIS, Secretary, Ottawa, Ill.

All remittances for subscriptions should be sent to Dr. G. N. Kreider, 522 Capitol Ave., Springfield, Ill.

The Society does not assume responsibility for any statements or opinions published in this journal.

Entered at the Postoffice at Springfield, Ill., as second-class matter.

Springfield, Ill., March, 1899.

AID THE S. B. OF H.

If all societies in the State were like the Peoria City Medical Society such a state of affairs as narrated under "Startling facts" in the February number of this Journal would not exist. It is unfortunate that doctors will not turn a hand in assisting the State Board of Health in its prosecution of offenders against the law, and then be the very first who cry out against the Board for not enforcing the law. All this seems to arise from the "I am not my brother's keeper, and have other business on hand." The apathy of the medical man to stir in such matters is too well known to be commented upon.

We are glad to note a beginning in the right direction in Peoria. Its Society proposes to raise a fund to aid in prosecuting all unlicensed practitioners and we sincerely trust that this Society will go a step further and assist personally in the prosecution of such offenders. We trust that its example will soon be followed by other societies.

It is beyond comprehension why some physicians should wish to assist these law-breakers. Recently we were shown letters from prominent physicians requesting the

Board of Health not to prosecute an old offender. Their sympathies were greater than their wisdom. W.

ASSISTANCE NECESSARY.

Dr. O. B. Will, in the February number of the Peoria Medical Journal, says that "there is perhaps no question but the organized profession of this State now has on its hands the fight for its life." That this proposition is true is evidenced by the fact that the organization of the American Medical Union has been made a national one, and its objects is the "overthrowing of the politico-medical oligarchy, falsely, named the Illinois State Board of Health." That Bland, who is the responsible head of this Union, is endeavoring by every means to have the present health laws repealed is shown by the above quotation from his letter to the Chicago Chronicle.

It is to be hoped that every physician in this State fully understands the character of Bland. Of his connection with questionable medical institutions we need not dilate upon, but that he is an energetic organizer for evil was clearly shown at the last session of the legislature.

It seems necessary that a campaign of education in the profession must be entered upon, for Bland went to Springfield with the endorsement of 2,000 physicians in this State requesting the total abrogation of all medical laws or such modifications thereof that would render them ineffective; and the legislative committee of this Society had but 800 advising a contrary course. This education must begin by arousing into action the existing apathy of that portion of the profession that has hitherto taken no part in this struggle, and change for good those who have been hoodwinked by the specious arguments and misstatements of Bland and his associates. This is more nec-

essary when we state that these lobbyists seem to have an unlimited supply of money (its source is easily surmised) and by its means maintain people at Springfield most of the time during the session, something that the lack of sufficient funds prevented the committee doing. However, it will not be necessary to raise a large amount of the "sinews of war" if the better element of the profession will interest itself in this matter and take the initiative in educating his neighbor. This element can control legislation if it will only ask for it and not quarrel with each other as to what shall constitute the best provisions in the law. Let every physician make up his mind to act individually and in harmony with the Legislative Committee of this Society, and the fight is won. W.

ARE WE WISER THAN THEY?

Critics without number have been wont to grow facetious while poring over the old Pharmacopœas which preserves to us the knowledge of the curious and often times vile concoctions and conglomerations with which, in the olden time, the devotees of the healing art were wont to ply their patients. Nor was their merriment without reason; and doubtless it were better to have been born at a later date. Not that there should be wholesale denunciation of ancient medication, but when it comes to the administration of remedies which were deemed heroic, by reason of their vileness, we find that our profession was no respecter of persons, but that royalty itself in common with its menials bowed to the same behest. Not to deal with the more heroic formulæ, a milder one will serve our purpose to illustrate the manner in which men high in rank were wont to be treated even by Court physicians.

In 1568, Cecil—later known as Lord Burleigh—who, as the private secretary of Elizabeth, more than any other man was giving shape to English affairs, was grievously tormented with gout. The wisdom of the queen's physicians had been invoked, but without avail; whereupon the Archbishop of Armagh, who by turns was also a physician, sent to Cecil the following prescription:

"Take two spaniel whelps of two days old, scald them and cause the entrails to be taken out, but wash them not. Take five ounces of brimstone, four ounces of turpentine, five ounces of parmaceti, a handful of nettles and a quantity of oil of balm, and put all of the aforesaid in them stamped, and sew them up and roast them, and take the drops and annoint you where your grief is; and by God's grace your honor shall find help."

And yet does it occur to us that in a later day the pharmacy of this generation will pass in like review? What then will be said of blue glass and of condurango? Or of the millionth of a grain of oyster shell? Or of the potency of a millionth of a drop (third dilution) of aconite? Or of faith cure in the mending of bones? Or of cures of mental suggestion, irrespective of distances? Or, that, since matter is only a mental concept, there is no such thing as disease? Or again, that faith alone, irrespective of works, can work a cure?

At that day suggestion and hypnotism will undergo review. The organic extracts will be rated at their value, and all the varied serum treatments will have found their level. How much of what today is claimed to be remedial will then survive? When the verdict of a later judgment shall be rendered, it is quite possible after the laughers of today may not have had the best of it. H.

BEWARE THE PROMOTER.

How to best invest his scanty surplus is sometimes a serious question for the unwary doctor. Busy with his practice and reading he does not have the time or opportunity to look up good investments and readily falls a prey to the soft words of the promoter himself, or the allurements of his printed circular. On our desk at this writing is a circular of the most dangerous character which has doubtless been sent to many physicians throughout the state. It is a type of many similar prospectuses which are being issued to exploit gold, silver, copper, coffee and sugar enterprises and for artful perversion and smooth persuasiveness it certainly deserves a premium.

The Sure Thing Mining Company has bought a claim in Eldorado where, although the natives are said to be lazy, improvident and superstitious, it has no doubt Northern capital and energy will find a most wonderful opportunity. The doctor is invited to join these philanthropists right now so as to get in on the mysteries but ancient ground floor. The promoters are actuated by the most unselfish motives of course, and it is very foolish and over-skeptical people who will refuse to swallow the bait and hand over their hard-earned dollars. Slow but sure investments will be found safest in the long run and "get rich quick" usually means "get poor quick."

Did we not know that many honorable physicians have squandered their savings in similar rain-bow chasings we would not take the space to advertise this particular "opportunity," but we can not too often advise our colleagues to keep their money at home, and ever and always to beware the promoter.

K.

THE JUBILEE MEETING.

The committee of arrangements for the fiftieth annual meeting met at the Leland

Hotel Monday, Feb. 26, 1900, and heard reports from the different committees.

L. C. Taylor tendered through J. N. Dixon his resignation as a member of the committee. O. B. Babcock was appointed to fill the vacancy thereby created.

It was decided to issue a personal invitation to attend the meeting to each of the 4,000 physicians who are members of a local society. This will be a handsomely engraved card. In the same envelope will be placed a list of the hotels and boarding houses, together with their rates and capacities.

It is believed that at least five hundred medical men will attend this important and historic gathering.

In this connection it will not be out of place to refer to the rapid growth of the Society. Since July, 1899, one hundred and eighty names have been added to the mailing list, and each month sees additions to the membership. New local societies are being formed and others formerly dormant are being revived. The State Society has now seventy more members than ever before in its history, and it is altogether probable that the close of the century will find at least one thousand members in good standing. The active cooperation of all the members is the one thing needful to put Illinois in the lead and secure for her medical men the recognition they deserve. K.

County and District Societies.

At the annual meeting of the Chicago Medical Examiners' Association January 30, the following officers were elected: President, Denslow Lewis; Vice President, W. K. Harrison; Secretary, G. F. Butler; Treasurer, J. Homer Coulter.

CHICAGO SURGICAL SOCIETY.

Charter members, J. E. Owens, J. B. Murphy, A. D. Bevan, Weller Van Hook, M. L. Harris, A. H. Ferguson, L. L. McArthur, D. A. K. Steele, W. H. Allport, E. W. Andrews, Carl Beck, S. C. Plummer, Jacob Frank, D. N. Eisendrath.

SCHUYLER COUNTY MEDICAL SOCIETY.

President, J. A. Harvey, Rushville.

Vice President, E. B. De Graff, Rushville.

Secretary, A. W. Ball, Rushville.

Treasurer, J. N. Speed, Rushville.

The secretary writes under date of Feb. 16: "After so long a time I take pleasure in writing to inform you that we have at last succeeded in organizing a society. We had a small attendance, but lots of enthusiasm. A committee was appointed to draft a constitution and by-laws."

Schuyler county is one of the smaller counties of the State. The success in organizing a society in this small county should stimulate every other county to have an active organization.

The semi-annual meeting of the Rock River Medical Association was held in the parlors of the Galt House at Sterling on Wednesday, January 24. Dr. E. A. McBride, of Sterling, is president, and Dr. A. L. Miller, secretary of the association. The following programme was given: "Placenta Prævia," Dr. Jane Reid Keefer, Sterling; "La Grippe," Dr. William Henry, Harmon; paper, Dr. D. S. Fairchilds, Clinton, Ia.; "Floating Kidney," Dr. E. S. Murphy, Dixon; "Fracture of Petella," Dr. J. F. Keefer, Sterling; paper, Dr. C. C. Hunt, Dixon. Volunteer papers, verbal reports and presentation of cases with brief clinical reports were called for.

The Wabash County Medical Society met in regular session Jan. 23. The subject for general discussion was "Antiseptic Midwifery," which was handled very thoroughly, showing a very considerable knowledge of the benefit of absolute cleanliness in midwifery.

J. Schneek presented a very able paper on "Eczema Complicating Wounds," being a very practical and scientific paper, showing more than usual care in observation and differential diagnosis in skin affections; the doctor taking the position that eczema is a non-contagious, non-microbic

disease, but a result of the disturbance of the normal physiological processes in this part of the body, it being more of a disturbance of a normal histological condition than a disease due to a pathological entity.

The Morgan County Medical Society, through a committee consisting of C. E. Black, Josephine Milligan and Edw. Bowe, has issued an invitation to a number of neighboring county and district societies for a meeting to be held at Jacksonville Thursday, April 12, to consider the subject of medical laws and medical organization in the State of Illinois. For convenience the subject has been divided into six general heads. 1st, History of our Medical Laws, City, County and State. 2nd, Efficiency of our Health Laws. 3rd, Efficiency of our Laws Relating to Medical Education and Practice. 4th, Powers and Limitations of the Board of Health under the New Act. 5th, Local Medical Societies and their Relation to District and State Societies. Doubtless all society members in the State will be welcome to attend this meeting.

BRAINARD DISTRICT MEDICAL SOCIETY.

This Society met at Jacksonville Jan. 25. Members present were Adams, Burnham, Black, Crouch, Duncan, Hairgrove, Norbury and Pitner, of Jacksonville; Coppel, of Havana; Fisher and J. W. Newcomer, of Petersburg; Hurst, of Greenview; Hole, of Tallula; Kreider, of Springfield; and Miller, of Lincoln. Visitors were McLaughlin, Cole, Bowe, Peters, Josephine Milligan, Harvey Milligan, Cochran and Cromwell, of Jacksonville; Vertrees, of Murrayville; Smith, of Roodhouse, and Harvey, of Griggsville.

The usual routine business having been transacted, the anti-vivisection bills now before Congress were discussed briefly, and a committee consisting of F. P. Norbury, with the president and secretary, was appointed to draft resolutions on the subject to be reported at the afternoon session.

From the Committee on Microscopy C. E. Black spoke of the need of local estab-

lishments for the examination of tissues and fluids and bacteriological tests valuable in diagnosis. Every county at least should have such a station supported as are drug-stores by the people who benefit by the work or by the municipality. It is often of importance to have such reports within a few hours, and this can only be done if the work is done near the patient.

Hurst and Miller spoke with commendation of the ideas suggested.

A paper on "Extradition of the Blind," by J. Whitefield Smith, of Bloomington, was read, in the writer's absence, by the Secretary.

It reported the interesting fact as to the ability of the blind to recognize their nearness to objects without the use of the ordinary means of touch and discussed the possible explanations of this power.

It was discussed by Adams, Coppel, Norbury, Pitner and Hurst, and the Secretary was directed to request the author to permit its publication in the Medical Fortnightly, the organ of the Society.

A. L. Adams, of Jacksonville, presented a paper on "Sympathetic Ophthalmia," with reports of cases, calling especial attention to the need of early and radical treatment in these cases and the frequency of unfortunate delay. The discussion was shared by Hurst, Newcomer and Black.

A. L. Brittin's paper on "Atypical Cases of Typhoid Fever" was presented and discussed by Pitner, Hurst, Hairgrove, Miller, Black, Smith and Vertrees.

T. C. Murphy, of Manito, contributed a paper on "Placenta Previa," which was read by C. E. Black.

G. N. Kreider, of Springfield, spoke on "Tuberculosis of the Spinal Vertebrae," with report of 17 cases. The points of differential diagnosis as illustrated in these cases were well presented and the need of early treatment by rest and proper support was emphasized. Black, Crouch, Newcomer, Hairgrove and Norbury took part in the discussion which was hastened by the lateness of the hour.

The resolution reported by the commit-

tee calling upon our representatives to oppose the passage of the proposed bill to control vivi-section in the District of Columbia was unanimously adopted.

C. E. Black, as a representative of the Morgan County Medical Society invited this Society to a meeting in April to discuss questions of state medicine, and to select a representative on the program.

On motion the invitation was accepted and S. T. Hurst, of Greenview, was appointed to represent the Society.

Reported by courtesy of
Katherine Miller, Secretary.

Dr. Weller Van Hook presented the following preamble and resolution, which was unanimously adopted by Physicians Club, Jan. 29, 1900. Copy sent to Gov. John R. Tanner.

It does not seem inappropriate at this time to offer a resolution for adoption by this club recommending to the Governor of Illinois a member of the medical profession of Chicago to serve on the State Board of Health. It also seems admissible to say that the high importance of that body and of its functions seems scarcely realized by the lay or even by the medical public.

The superintendence of medical education is of high importance and in our State has been for a long time recognized. The work done in this department by the Board of Health has been for years a credit to our State.

The collection of vital statistics has been attended to with less success than would seem desirable and this is largely due to a lack of professional co-operation.

When we consider for a moment the illustrious efforts of Koch, Pfeiffer, Gaffky, Haffkine, Behring and a host of other European savants in the study of hygiene, we must admit the failure of our own commonwealth in one of the most important departments of human endeavor. The advantages of oligarchies in such affairs are self-evident. In republics, government cannot far precede the education of the people.

At the very moment when many wise

hygienists are considering the dangers we incur in our exposure to bubonic plague it is pertinent to ask what our State has done in the study of this disease and in preparation for repelling its advances. And what can it do under the circumstances? A large laboratory of hygiene presided over by scientists of the highest qualifications should be located at the capitol with stations scattered over the State at convenient points. All subjects of sanitation should be included in its investigations. And not only should this laboratory be utilized to extend aid in a clinical way, but the theoretical study of the various complex topics of hygiene should be included. These statements are in no way intended to reflect upon the work of the present members of the State Board of Health. Such work does not at present fall within the scope of their duties.

The medical profession must take the lead in the matter of improving the standing and personnel of our State Board of Health as well as the scope of its efforts to the end that an ideal work may be accomplished, if not at once, at least in the future.

No professional duty under these circumstances can be more important and none should be more conscientiously discharged than that of properly advising our governor with reference to the qualifications of members of the State Board of Health. The careless recommendation of half-educated and half-Americanized foreigners to such important offices should be heartily condemned.

Gentlemen, in presenting the following resolution for your indorsement I feel sure that we suggest to the governor the name of a man whose strict probity of conduct, high intelligence, social status and wide attainments in medicine will in all respects do us credit as a profession and guarantee the proper performance of his duties.

Mr. Secretary, I move the adoption of the following resolution:

Resolved, That the Physicians' Club of Chicago warmly recommends to Hon. John R. Tanner, Governor of Illinois, the appointment of Dr. George W. Webster, of Chicago, as a member of the State Board

of Health to fill the next vacancy occurring in that body.

Carried unanimously.

Wm. H. Wilder, Sec'y.

The Morgan County Medical Society held its January meeting with eleven members present. A committee consisting of members Black, Milligan and Bowe was appointed to confer with contiguous medical societies and arrange for a joint medical meeting to be held in Jacksonville during April.

C. E. Black reported two recent obstetrical experiences of interest. A primipara aged 23. A hydrocephalic head of large dimensions presented and in attempting its delivery the forceps brought away an eye. The use of the forceps dislodged the part and in a short time the monster was delivered. There being no bony parts above the nose an eye had slipped into the fenestra of the forceps and been extracted by it. The fetus gasped a few times only. The second case was a 2 para four and a half months pregnant, presented symptoms of general disturbance and an odorous discharge. Under chloroform the cervix was dilated and the uterus emptied of two fetuses and placentas. Both placentas had become partly detached and a suppurative process was in progress beneath the areas of detachment. The cavity of the uterus was irrigated and packed with gauze and convalescence was without incident.

Frank P. Norbury reported a case showing the value of Kernig's sign in differential diagnosis. I recently saw, in consultation with Dr. Miles, of Chandlerville, a case wherein the question of a differential diagnosis was the issue. The case, briefly, was that of a young woman who, but a few weeks previously, had lost her mother by death, and who, by reason of the protracted worry and anxiety of her mother's illness and the home cares, was very much run down.

Her illness began with headache, occipital followed by pain in the limbs and joints, rheumatoid in character; a variable temperature; not very high, sometimes sub-

normal; hyper-æsthesia of extremities and trunk; sensitive to light; extreme prostration; slight delirium at night and emotional excitement; there was no retraction of the head but some stiffness of the muscles; bowels were constipated; appetite variable; some remission of symptoms with apparent improvement with later more marked symptoms.

When I saw the patient the most marked symptoms were: Rapid pulse; subnormal temperature; occipital headache; hyper-æsthesia of extremities and trunk; sensitivity to light; no nystagmus nor ptosis; rheumatoid pains in lower limbs and joints; muscular stiffness of limbs and neck; no retraction; urine scanty; bowels constipated; appetite variable; some nausea; tache cerebral and spinal marked all over the body; and last but not least, I made the diagnosis of cerebral-spinal meningitis.

The disease from which we were called upon to make differentiation in this young woman were hysteria and neurasthenia. I would briefly state that the three distinctive symptoms were Kernig's sign, sensitivity to light, age, tache cerebral which when associated seem to me to make conclusive the diagnosis of cerebro-spinal meningitis.

Kernig's sign—"It is determined by placing the patient in the dorsal decubitus with the legs relaxed and fully extended at the knees. When the patient is raised in a sitting posture the knees are flexed and cannot be extended on account of contracture of the posterior muscles of the thigh." (Musser) Now, according to Netter (XX Century Practice, 1898) this sign is pathognomonic and indicates meningitis. I have found it present in sixteen out of twenty-four cases of cerebro-spinal meningitis seen by me during the past year.

Hysteria is eliminated by the temperature record and presence of Kernig's sign. Neurasthenia by the same symptoms and the absence of leading signs and symptoms of neurasthenia.

The differentiation is briefly in recognizing the presence of Kernig's sign and other signs of the disease, always remembering

that the symptoms vary considerably in different cases and in different epidemics. The bacteriological examination is the certain method of diagnosis, but clinical evidences as now differentiated are very satisfactory. In comparing cases, in the study of individual cases, we learn to differentiate in our diagnosis.

W. K. McLaughlin presented a very interesting paper on the causes of deafness and deaf mutes, based on observations made at the Jacksonville institution. A few extracts are given:

Illustrative of the neglected diseased condition of the upper respiratory tract of deaf and dumb children, I made an examination of the nose and throat, during the school year of 1897-1898, of 372 children. Of this number only four presented normal respiratory tracts, and did not require treatment of any kind. Three hundred and five had hypertrophy of one or both inferior-turbinate bones; one, cleft palate; one, atrophic rhinitis; thirty-seven, septal deformities; thirty-four, polypi; ninety-eight, hypertrophy of one or both faucial tonsils; one hundred and eighty-eight, adenoids.

Of ninety boys under eight years of age, eighty had adenoids, with almost total occlusion of the naso-pharyngeal space. What might have been the possibilities for hearing and speech had the little ones been given the benefit of proper professional attention?

During the school years 1897-1898 and 1898-1899 these various pathological conditions have been corrected with the following self-evident results:

The physician's report for the year 1896-1897 shows the following disturbed conditions of the upper respiratory tract: Number of cases of tonsilitis, 68; otalgia, 72; pharyngitis, 45. For the year 1897-1898 (during which time the operating was in progress and the upper respiratory was consequently more disturbed), tonsilitis, 53 cases; otalgia, 15; pharyngitis, 30. During the year 1898-1899, so far, tonsilitis, 0; otalgia, 1; pharyngitis, 5. In view of the fact that this last year has been a year

preeminently of catarrhal epidemics, I think the showing a most remarkable one.

The chief object, at this late date, of correcting the diseased condition of the mute children is to establish a quiescent condition of the upper air space, thus improving their general health, and to render less rigid the soft palate that they may the easier become proficient in articulation, the single method left by which they can make known their thoughts to others.

In discussion:

A. L. Adams—I believe the percentage of cases attributed to a diseased condition of the upper respiratory tract is too large. In many of these cases deafness is due to disease of the auditory nerve with an accompanying disease of the air passages. There are often other accompanying signs of degeneration such as retinitis pigmentosa.

F. P. Norbury—What Dr. Adams has said regarding deafness is also true regarding the feeble minded; many other signs of degeneracy are often present other than the mental symptoms.

The Decatur Medical Society met Jan. 25 in regular session, with a large attendance. Dr. Wilkinson, of Monticello, read a paper on the smallpox epidemic prevailing in that place.

His paper in part was as follows:

APPEARANCE OF DISEASE.

"I shall present a description of this disease to you as I have met it, as it is much easier for me to follow it in its different stages. The disease presents itself with the following clearly defined symptoms. The patient is usually taken suddenly ill. A chill marks the outset of the disease which may be severe or so mild as to constitute only a slight rigor. The chill may be so slight that it is not thought to be of any consequence. This is followed by an elevation in temperature which may vary from 102 to 105 degrees. In a few cases the patients have a faint feeling and some faint completely. When the temperature is high there is usually great

restlessness, and marked prostration may be present. Irritability of the stomach occurs at this time which may be mild, or intense and distressing. Nausea and vomiting may be the most distressing symptoms early, and continue until the appearance of an eruption; or nausea and vomiting may not occur until the third day. Lumbar pains is an early symptom varying in degree and more constant in adults. In about 10 per cent of cases it is so severe that an opiate is required. Headache usually begins with the fever and frequently it is very severe in adult cases. In two cases I have seen with high temperature there was delirium. Dizziness is present in many cases. It may be only slight, but, also, it may be so severe that the patient cannot walk, and may faint if an attempt is made to walk.

PROGRESS.

"These symptoms continue in a varying degree from two to four days. Usually at the end of the third, or beginning of the fourth day eruption begins to appear. The temperature invariably falls, and the distressing symptoms of lumbar pains, if present, disappear. The headache is relieved but may continue until the eruption is general over the body.

"So greatly are all the symptoms relieved that the patient frequently leaves the bed not to return again. In the more severe attack the symptoms are greatly improved, and the patient is relieved so he sits up; but when the vesicular stage of eruption is on he returns to his bed to remain four or five days longer. There may be a chill at this time, or a slight chilling. Usually, however, patients do not complain of any chilling. There is great soreness and inability to use the hands and arms, due to the inflamed vesicles. In a few cases I have seen all the pre-eruptive symptoms are without any eruption and may only have a half dozen spots. There may be severe pains in the region of the lungs, causing one to suspect the outset of an attack of pneumonia, but the short duration of the fever and

appearance of the eruption relieves one of that opinion.

MORE CHARACTERISTICS.

"The eruption makes its appearance first as a rule on some part of the face, forehead or neck, as a red spot slightly elevated at first, but soon becoming a distinct papule, and in forty-eight hours they are dense, firm and hard. Under the finger they feel not unlike a foreign body. But the time the papules are complete over the body the first that appeared begin to break down at their apices and a distinct vesicle is formed. By the third day the vesicular stage is pronounced. At this time can be noticed the condition known as umbilicated, which may be only about once in every fifteen to thirty vesicles.

VACCINATION.

"The cases having the confluent form on the face and hands show the most tendency to pitting. In the pustular stage the intervening tissue between the pustules is occasionally much swollen. In two cases I have seen the faces were swollen so that the eyes were almost closed. In only a few cases has the secondary fever occurred and that is described as being such a prominent symptom in unmodified smallpox. However, the pustular stage is usually accompanied with an elevation of temperature to 101 or 102 degrees. The symptoms given are from cases that have not been vaccinated. I have not seen any case in one who had been vaccinated in recent years."

In conclusion he said that the epidemic now prevalent in Monticello is undoubtedly a mild form of smallpox. He said that there had been over 200 cases there, but none of them had proved fatal.

DISCUSSION.

The discussion that followed the paper was full of interest, quite a number taking part in it. Dr. Bumstead, who had treated a number of cases in Decatur during the war, was called on. He said that the cases he had treated had the same symptoms as those described by Dr. Wil-

kinson, and that he was satisfied that the cases at Monticello were smallpox. He also said that while there had been no deaths so far, it would not surprise him if the disease should assume a more violent form at an early day and cause the death of many people. He advised the physicians to take every precaution and urged vaccination as the best known preventive.

OTHER CASES.

Dr. Matson, of Monticello, Dr. Champion, of Mansfield, and Dr. Edmonson, of Clinton, were among those who took part in the discussion. They described cases they had attended. Dr. Edmonson had charge of smallpox cases at Vicksburg in 1863, and he was at first inclined to believe that this Illinois epidemic could not be smallpox. He said that a child had taken sick at Clinton in the past few days and from the description of the cases he had just heard he believed that it was smallpox.

Dr. J. V. Champion, of Mansfield, told of twenty-seven persons who had been directly exposed to smallpox. Seven of them had been vaccinated and twenty had not. The twenty took the disease and the seven did not take it. He urged vaccination and every possible precaution.

At the close of the discussion Dr. J. N. Randall introduced a resolution declaring it to be the sense of the meeting that the disease now prevalent in several parts of the state is smallpox, and that every precaution to prevent its spread, such as quarantine and vaccination, should be adopted. The resolution was unanimously adopted and the meeting adjourned.

The physicians present from out of the city were Dr. Champion, of Mansfield, Dr. Coy, of Stonington, Dr. Melton, of Warrensburg, Dr. May, of Mt. Zion, Dr. Hoover, of Lovington, Dr. Bratz, of Moweaqua, Dr. Wilkinson, of Monticello, Dr. Connelly, of Harriestown, Dr. Matson, of Monticello, Dr. Edmonson, of Clinton, Dr. N. N. Vance, of Bement, Dr. B. F. McMennamy, of Bethany, Dr. W. T. Bridges,

of Stonington, and Dr. Edmonson, of Maroa.

The board of health of Decatur wishes to call attention to three facts, brought out at the recent largely attended meeting of the Decatur Medical Society, viz.:

1. The unanimous decision of the society that the disease at Monticello, Mansfield, Dixon and other points in the State, is unquestionably smallpox.

2. Since it is so near it is very likely to be brought to Decatur.

3. That the experience in those places prove conclusively that no persons who have been successfully vaccinated within the last seven years have taken the disease.

In view of these facts this board calls on the people to see that all unvaccinated persons, old or young, be vaccinated immediately, and further, that all who have not been successfully vaccinated within the past seven to ten years be re-vaccinated at least once, to test their immunity.

Prompt and general compliance with this order may save us from the consequences of an epidemic which would be a great misfortune to our city.

Signed, H. C. Jones, M. D.

T. Meriweather, M. D.

J. H. Burke, M. D.

Reported by courtesy of E. J. Brown.

The Sangamon County Medical Society met in regular session in the county court room Feb. 12, 1900, with President Kreider in the chair. Members present: Babcock, Bartlett, Barker, Babb, Bowcock, Duncan, Egan, E. E. Hagler, A. L. Hagler, Hill, Jones, M. T. Kelly, J. W. Kelly, Kreider, McTaggart, Moffett, Munson, Nelson, A. E. Prince, L. C. Taylor, A. L. Brittin, Ryan, A. D. Taylor, Percy Taylor and D. M. Ottis.

Minutes read and approved.

D. M. Ottis, after the ballot was spread, was declared elected to membership. The applications of R. E. McClelland, of Wil-

liamsville, and Paul E. Bain, of Pleasant Plains, were received and referred. An invitation from a committee of physicians from the Morgan County Medical Society was received requesting the Sangamon County Medical Society to meet in Jacksonville on Thursday, April 12, 1900, to consider the subject of "Medical Laws and Medical Organization," etc., and upon motion said invitation was accepted and the President appointed Drs. Egan and Moffett to attend this meeting.

The President, with consent of the Society, appointed the following committees: a committee of commendation of the City Board of Health, and a committee upon anti-vivisection bill, now pending in the Congress of the U. S., and appointed as first committee, Drs. A. E. Prince, J. W. Kelly, W. T. Moffett, Helen Babb and A. L. Brittin. As second committee, Drs. E. E. Hagler, L. C. Taylor, O. B. Babcock, C. S. Nelson and T. A. McTaggart.

The committee of commendation of the City Board of Health, reported as follows:

Whereas, The City Board of Health has acted in an efficient, prompt and successful manner in controlling the cases of smallpox which occurred, and thereby prevented the extension of the disease in Springfield, therefore,

Resolved, That the Sangamon County Medical Society commends the action of the City Board of Health and invokes the co-operation of every member of the community in all future efforts to quarantine the disease; and

Whereas, Smallpox has prevailed in many parts of the State, and several communities have neglected to enforce proper quarantine measures, and refused to admit the presence of the disease, which becomes thereby a menace to the State at large, be it

Resolved, That in view of the further fact that vaccination has been proven to be a specific against the malignant form of smallpox, the Sangamon County Medical Society urges the citizens of Sangamon and adjoining counties, to at once institute thorough vaccination in the case of all who have not been successfully vaccinated.

within the period of five years; be it further

Resolved, That the press of the city be requested to publish the foregoing resolutions.

The committee appointed upon the "Anti-Vivisection Bill," reported as follows:

Resolved, by the Sangamon County Medical Society, that the passage of Senate Bill No. . . ., the "Anti-Vivisection Bill," of Senator Gallinger, would be a great injustice to scientific investigation in general, and to the medical profession in particular.

Resolved, That our representatives in Congress be respectfully requested to use their influence in defeating its passage.

The topic of the evening, "Smallpox," was opened by M. T. Kelly with varieties of confluent, semi-confluent, discrete, varioloid, hemorrhagic, rare cases without eruption, as in pregnant woman, with all symptoms, but without eruption, and communication of disease to fœtus. Spoke of the epidemics where the disease was so mild as scarcely to cause the patient to be confined, and of the malignant type which caused the death of thousands. Described the characteristics of all varieties.

C. S. Nelson followed with an exhaustive paper upon "Differential Diagnosis," touching upon the great amount of discussion which had been engaged in over the disease, on account of opposition from members of the medical profession, and the denials as to the prevalence of the disease, not complimentary to the medical profession engaged in such controversy. Cited the efforts made by the State Board of Health to control the disease, and the many difficulties thrown in the way. Gave a most lucid description of the disease and plainly showed that the claims of those opposing the truth of the prevalence of smallpox, and calling the prevailing epidemic varicella, impetigo contagiosa, erythema-bulbosum (Nodosum), elephant chickenpox, etc., etc., were due to the mildness of the present epidemic, but that the distinctive characteristics of smallpox were present unmistakably, and that physicians should

be able to diagnose the disease, and check its career before it assumed a malignant type. Stated the fact that from the very mildest type of the disease the most malignant type could occur. Said that the trouble with physicians who had no experience with the disease was, that they expected to find an unbroken chain of symptoms as laid down in the text books, and said that there was scarcely a symptom of the disease as described in the text books, which might not be absent, or greatly modified. Lumbar pains which is emphasized as one of the most prominent symptoms may be wholly absent, and cited a case of malignant type under his observation without this symptom. Described the characteristic eruption, its location and the difference between it and other forms of eruptive disease. Spoke of the odor of smallpox, which under certain conditions was certainly present, but that as a diagnostic sign could not be relied upon, it being absent under certain other conditions. Read in conclusion a letter regarding the physician who had diagnosed a case of the disease as erythema bulbosum, but who had changed afterwards the name to elephant chickenpox.

Mack Jones followed with "Treatment." Said smallpox epidemics had afforded abundant opportunities for medical experiment, especially prior to the discovery of vaccination. Many of the drugs had been found not only useless, but actually detrimental, and he expressed the belief that up to the present time there was no known therapeutic agent to be used advisably as a cure of the disease. Drugs were palliative only. Had seen the good effects of plenty of fresh air in the treatment of cases of smallpox, during an epidemic of the disease in Oregon, and described his method of caring for the patients during the heat of the day, by removing them from the tents provided for them, to brush huts which shielded them from the intense heat during the day, returning them to the tents at night. Patients doing well. Applied vaseline externally to relieve itching, with good effects. Vaccination the treatment, and early vaccination advised; vaccination

after exposure and up to and including the third day with almost certain modification of the disease. The treatment in absence of a specific wholly symptomatic; rest in bed, in a thoroughly well ventilated room; temperature of 65° F.; light, but sufficient covering, cool drinks, milk, and soups as diet. Care during convalescence, and rigid measures for disinfection of room, clothing, etc., after disease has passed.

A. L. Brittin presented "Prevention, including Vaccination and Anti-Vaccination." No more timely topic could be taken up than the subject of smallpox, inasmuch as we are menaced at the present time on all sides by the disease in question. Thought it should be conceded that smallpox in a typical form existed now in various localities near by. Gave history of vaccination and inoculation; latter of very ancient date. Stated that the first mention of vaccination was by a farmer of Gloucestershire, England, in 1774, but that the credit was given to Edward Jenner, through whose efforts and experience the practice gradually came into use, and is now a recognized method of procedure in all civilized nations of the earth. Like other important discoveries it had its opponents, and they still exist, but considering the mass of evidence afforded by medical literature and statistics regarding the protective value of vaccination against smallpox, no fair-minded man can dispute that the human race owes its greatest debt of gratitude to Edward Jenner, the English country physician and original scientific investigator of one hundred years ago. Stated that no greater mistake can be made than to claim that absolute immunity was conferred by vaccination. Very rarely do cases of unmodified smallpox occur in vaccinated individuals—recent vaccination. When such an instance occurs the anti-vaccinators raise a cry against vaccination as of no efficacy.

Usually when smallpox attacks one protected by vaccination it is in a modified form, and rarely fatal. Not possible to state as to protective influence of vaccination; safe rule to follow is when smallpox is prevalent is to vaccinate every person

who has not been successfully vaccinated within five years. Spoke of the care which should be had to sterilize the field of vaccination and to be clean in all stages of procedure. Quoted authorities as to definite ratio between the number of deaths and the number of good vaccination marks in post-vaccinal smallpox. With good marks the mortality is between three and four per cent, and with indifferent marks ten to eleven per cent, as given by one authority. By another, from five thousand cases, with good cicatrices, eight per cent; fair cicatrices, fourteen per cent; poor cicatrices, twenty-seven per cent; post-vaccinal cases, sixteen per cent; unvaccinated cases, fifty-eight per cent.

J. A. Egan, Secretary State Board of Health, took up "Quarantine and Disinfection," and touched upon differential diagnosis, making a most thorough description of the characteristics of smallpox, and quoted largely from authorities in regard to the character of chickenpox, and as to its being almost exclusively a disease of childhood; under the age of ten years. Said that there was a very close relation between diagnosis and quarantine; pending the establishment of the former, the latter should be enforced, especially during an epidemic of the disease. Said, had this rule been enforced many epidemics in recent years and in the past would have been prevented, and many lives saved; the panics, interruption to business and interference with travel and commerce, always attendant upon epidemics, would have been obviated. Epidemics have started as a result of a mistake in diagnosis, the disease as usual being called chickenpox. This can be said of the epidemic now prevailing in the State of Illinois, in which smallpox has been termed "Cuban itch," Puerto Rican chickenpox," and lastly "elephant chickenpox." Spoke of unfamiliarity of the majority of the physicians with any form of smallpox, few physicians of the State having, in recent years at least, seen cases of smallpox, until the recent outbreak of the disease. Quoted from Dr. Hyde's able article on smallpox, "there are no novel phenomena to be noted

in the prevalent epidemic. Expert physicians in England, Germany, France and Austria have long since investigated and expounded every one of the symptoms that have in this day bred so much indecision and confusion in the minds of observers."

In 1897 McCombie stated in Allbutt's System of Medicine, that a large proportion of the cases that occurred now are of the modified form, which he describes at length, the form being the type now existing. In this type the resemblance to chickenpox is more marked than in the ordinary form, the papules changing sooner into vesicles and the latter into pustules, which soon enter into the stage of dessication. The points of resemblance, however, cease with the above. The course of the eruption as stated by McCombie, and others, is altered so completely, and the symptoms are so modified, that it is often difficult to recognize the identity of the ordinary and the modified diseases. While this is true, the fact affords no justification for a diagnosis of chickenpox where a careful study of the history of the patient, the appearance, character and behavior of the eruption, and above all an accurate knowledge of the symptoms, course, duration, and termination of chickenpox would tend to make such impossible. The diagnostic points usually to be considered in the differentiation of the disease mentioned are, 1st, the initial symptoms; 2d, the distribution of the eruption; 3d, the character of the eruption; and 4th, possibly the temperature. By the majority of writers the presence of all stages of the eruption at one time, a condition found in chickenpox, is considered the most important diagnostic feature. To these points he added, 1st, the incubation period; 2d, the age of patient. The former is of importance only when considered with other subjective and objective symptoms; the latter constitutes in a selected group of cases the most important element of diagnosis. Contrary to general belief the incubation period of varicella is of greater duration than that of variola. In the latter the time is usually twelve days, although cases have been ob-

served nine days after exposure. The limit extends from seven to twenty-four days. In chickenpox, however, the period is rarely shorter than fourteen days, usually running from fourteen to sixteen; it may, however, be much longer, from nineteen to twenty-three days. Stated that the majority of cases of smallpox seen during the past five months had been, with few exceptions, pronounced chickenpox. The only justification for such diagnosis seemed to be the modified nature of the symptoms, the absence of fetor and the almost entire lack of fatal results. Were there no other reasons for doubting the diagnosis made, were no opportunity to inspect the patient afforded, the exclusion of varicella would meet with approval of every scientific observer, for chickenpox is not a disease of adults. Safe to assert that not one percent of the physicians of Illinois had ever seen or treated cases of chickenpox in other than children. In support of position taken by him as to the present epidemic eruptive disease, which seemingly attacks adults in preference to children, except in cases where the latter have not been vaccinated, and which he has declared certainly not chickenpox, he submitted a large number of quotations from leading text books, showing that chickenpox was a disease of early childhood, and seldom seen after the age of nineteen years, more commonly affecting these of much younger age.

Too much stress could not be laid upon the differential diagnosis between smallpox and chickenpox, especially at a time when physicians are maintaining that the disease prevailing is the latter. The ability of a physician to readily recognize smallpox, and chickenpox also, may at any time determine the beginning of an outbreak in a community, which may not only entail much sickness and suffering, disturbance of business and financial loss, but may also sacrifice many valuable lives.

It could be said without fear of contradiction that the present epidemic of smallpox in the State has been caused by a failure to recognize the true character of the

disease. The refusal, furthermore, of physicians,—happily only a few—to accept the diagnosis of smallpox established by competent authorities, has also been an important factor in the spread of the disease, and has done much harm in the State. Said that there was not the slightest doubt in the mind of any scientific physician that smallpox now prevails to an alarming extent in the State of Illinois, and that in view of this fact it was incumbent upon every physician to recommend rigid quarantine and isolation in every case of eruptive disease, concerning which there is the slightest doubt or uncertainty, and the maintenance of same until all doubt was removed. A varicella-like eruption in an adult should be regarded with the greatest suspicion. It may not be smallpox, it is extremely unlikely to be chickenpox.

Considering quarantine, stated the provisions of Sec. 2, Act to Create and Establish a State Board of Health of Illinois, giving said Board of Health general supervision of the health of the citizens of the State, charge of all matters pertaining to quarantine, authority to make rules and regulations and such sanitary investigations as they may from time to time deem necessary for the preservation or improvement of public health; and citing the duty of all police officers, sheriffs, constables and other officers and employees of the State to enforce such rules and regulations, so far as the efficiency and success of the Board may depend upon their official co-operation; also that local authorities, the city council in cities, and the president and board of trustees in villages, or the board of health appointed by them, have just as ample powers within their jurisdiction. There is no question as to the legality and scope of all reasonable regulations adopted by city councils, or boards of trustees, or by the Board of Health appointed by them; the Supreme Court of Illinois having passed upon and settled the question. There is no question as to the power of local authorities to establish and maintain quarantine within their boundaries, necessary to pre-

vent or suppress disease. A town to quarantine against a town must have the approval of the State Board of Health. Just what constitutes quarantine is best determined by the locality in which it is instituted, there being no hard and fast rule governing all cases. The notice of the quarantine must in all cases be served upon the head of the family, or preferably upon all persons within the house; the act of placing the notice upon the house not being considered a legal notice. Smallpox patients should preferably be removed to an isolation hospital, or to unoccupied house, and the premises from which they are taken thoroughly disinfected. Other members of the family should be vaccinated and they should be quarantined for at least nine days, until the period of incubation of smallpox has passed. If patient is to be left in house with rest of family proper care should be taken to isolate as far as possible the same.

There should be little communication between the sick room and the family, and over the door should be hung a sheet wet with a solution of carbolic acid or mercuric chloride. So long as the patient is confined in the house, just so long should those who choose to reside on the premises be quarantined; in fact, such persons should not be released from quarantine until the period of desquamation has passed. On being released from quarantine whether at the expiration of the incubation period or later, the clothing of all such persons should be thoroughly disinfected. The patient should not be discharged until the period of desquamation has passed. Before being released the patient should be given an antiseptic bath and provided with new clothing or clothing which has been thoroughly disinfected. All persons known to have been exposed to smallpox should be quarantined in their houses, for a variable period, and it might be well, as a precautionary measure to disinfect the premises after their release from quarantine. Disinfection should be thorough, and not carelessly done. Stated results of experiments in regard to disinfection, as made by the

State Board of Health and physicians and local health authorities were advised to make use of sulphur dioxide in the proportions of four pounds of same to each 1000 cubic feet of air space, burned preferably in the presence of moisture, and the time of exposure to be at least twelve hours and longer if possible. It is further recommended by the Board that the use of sulphur be followed by a thorough washing with a 1-1000 solution of mercuric chloride. Did not recommend formaldehyde as an aerial disinfectant.

C. S. Nelson, who had had smallpox years ago, showed his arm which had been recently vaccinated and presented typical appearance of vaccination.

W. O. Ryan presented three pathological specimens.

The Society then adjourned to the Delicatessen for lunch, and a discussion of the topic of evening was engaged in by the members generally. J. W. Kelly had known of two cases of chickenpox in adults.

D. W. Ottis asked if vaccination had any protective influence against the hemorrhagic form of smallpox. Dr. Egan answered that it was understood that vaccination gave no positive insurance against the contagion of smallpox, but that no cases of recently vaccinated persons had been observed as victims of the disorder.

O. B. Babcock gave a prescription for treatment of smallpox, which dated from 1728, which he stated any physician might try, if he so desired.

C. S. Nelson made the point that hemorrhagic smallpox was not a distinct type of the disease, but only a severe form of same, as was the hemorrhagic form of measles, etc.

The meeting was one of the best held since the organization of the Society. No further business appearing, the Society adjourned. Reported by courtesy of

E. P. Bartlett, Secretary.

Dr. Arthur R. Reynolds, Commissioner of Health, delivered a public lecture in Chicago February 2, on "The Work of the Health Department."

Correspondence.

Editor Illinois Medical Journal.

Please correct an error in my letter published in the February number of the Journal. Read pink eruption for pus eruption in the sentence "in four days another crop appeared so that she had, at the same time and in the same locality, those which were desquamating those that were vesicles and the pink eruption."

This correction is necessary as farther on I write that "I never saw the appearance of pustulation," thus making a contradiction. In the case to which I am referring, these pink spots continued to appear for several weeks after convalescence but without vesicles.

And there was never any pus fever. In my hemorrhagic case the temperature passed from 104° on the first day to 99° on the fourth where it remained throughout convalescence.

Harriet E. Garrison.

Dixon, Ill.

Springfield, Feb. 21, 1900.

Editor Illinois Medical Journal:

I hardly feel justified in asking for space in your valuable Journal to continue the discussion of the "Dixon Epidemic," but an attempt has been made to slander and ridicule not only the Illinois State Board of Health, but men of high authority in the medical profession, because they diagnosed the disease smallpox. The opinion and criticisms of the laity are not worthy of notice by the medical profession, because they are not supposed to know what they are talking about. It would be equally as consistent for them to criticize the views of Thos. A. Edison on the science of sound, or electricity, as to criticize such authorities as Drs. Hyde and Spalding, on their diagnosis of an eruptive disease. Strange to say, this criticism has not been confined entirely to the laity, but even some members of the medical profession have given it their support. This is due either to ignorance, or a disposition not to acknowledge

error when convinced of it. The latest addition to this tirade of criticism is found in the February issue of Illinois Medical Journal and signed Harriet E. Garrison. Dr. Garrison not only criticises the diagnosis of Drs. Hyde, Spalding and others, but it seems she has discovered a new place in the category of medicine for this disease, and has christened it "elephant chicken-pox." Dr. Garrison was present at a meeting of the city council and a number of resident physicians of Dixon Dec. 2, 1899, at which time she and others took issue with the writer in the diagnosis of the disease. Dr. Garrison described the symptoms of her cases, viz.: backache, headache, nausea, eruption, etc., and when I asked her to please state her diagnosis, she promptly replied, "Erythema Bulbosum." It would be of interest now for Dr. Garrison to describe the evolution of this disease, which has been transformed from "Erythema Bulbosum" on Dec. 2, 1899, to "elephant chickenpox," Feb. 1, 1900. Dr. Garrison in common with a few other physicians, places great stress upon the statement "there has been no deaths to substantiate their claims to chickenpox." I have often wondered if these doctors always rely upon the undertaker to assist them in the diagnosis of a disease. But if they must have a death to convince them they are dealing with smallpox, instead of chickenpox, this evidence can be produced. The State Board of Health has in its possession the picture of a Dixon child taken after death with the eruptions of the disease plainly visible.

A few weeks ago, I inspected a case in DeWitt county. A Dixon student who had returned home a few days before. He was in the pustular stage and I readily recognized it as a case of smallpox. I was given a very discourteous reception by the family, and when I insisted on them being vaccinated they steadfastly refused, saying they would just as soon have "that" as to be vaccinated. A few days later another member of the household took the disease and died. In conclusion I wish to say that heretofore I have paid no attention to the

abuse and criticisms which have been heaped upon me as well as the State Board of Health, and others for the stand we have taken concerning this disease. The Dixon newspapers, or even the embryo lawyer attending school there, are excusable for trying to discuss something of which they know absolutely nothing, but it is certainly time for Illinois physicians to get on the right side of this question before conditions arise which will cast reflections not only on physicians who have entertained these erroneous ideas, but on the medical profession in general. C. S. Nelson, M. D.

WHY IT IS NOT CHICKEN-POX.

To the Editor:

To demonstrate the absurdity of the position taken by Dr. Harriet E. Garrison in her communication in the Journal of January, under the caption "Why We Called it Chicken-pox" (having reference to the recent epidemic of smallpox in an Illinois city), it is only necessary to point out that this disease, which she now pleases to term "elephant chicken-pox" has spread from the city in question to other municipalities adjacent, and at a distance, causing outbreaks of typical smallpox. In three instances the dissemination of the germs of this peculiar type of varicella has been followed by fatal results, in one of which the patient, an adult, dying of confluent smallpox, was described by the local press as being "swollen to the size of a barrel."

Were corroborative testimony essential a bare recital of the fact that through the kindly influence of over nine thousand vaccinations, this disease, (the existence of about one thousand cases is admitted), is now practically extinct in the city, would tend to satisfy the most skeptical. Many factors besides vaccination of course contributed to this happy consummation, but among these do not appear meteorological phenomena, such as the advent of "the clear cold weather at the beginning of the present month," which in the opinion of Dr. Garrison, has tended materially to cause the disappearance of the malady.

Corroborative testimony of a cogent

character, has been furnished, however, by representatives of the State Board of Health, and Chicago Health Department, physicians who have seen many hundred cases of both modified and unmodified smallpox in recent years, and are conversant with all types and varieties of the disease, and by a dermatologist of not only national but world wide renown, and also by several physicians, seven at least, of the city in question who unhesitatingly pronounced the disease smallpox. To this quota may be added Dr. Garrison herself who doubtless unconsciously, aims to prove the diagnosis she endeavors to disprove in her description of the "scores of cases carefully and conscientiously followed from the initial stage to complete desquamation," and especially in the enumeration of the cardinal pathognomonic symptoms of the premonitory stage.

Dr. Garrison admits having had six cases of a severe type, one hemorrhagic, more than thirty with eruption and nearly the same number without eruption, all "with the same initial stage, high fever, severe headache and backache usually in the sacral region." Varicella, it is unnecessary to say, is not preceded, except in rare instances, by such symptoms as these. In the vast majority of cases no prodromal stage can be recognized, the appearance of the eruption being the first sign of the child's illness. *Variola sine exanthemate* was not unknown to the writers of older times and those of the present day are thoroughly conversant with this special form of smallpox. That cases exhibiting this peculiarity should occur in a physician's practice is not particularly noteworthy.

Neither is the appearance of smallpox in crops; on which so much stress is laid, of unusual interest to those who are conversant with the many types of this disease. To quote from an able article on this subject by Charles A. Lee, M. D., in the American Journal of the Medical Sciences, July, 1853, "the eruption may be irregular in size and form, as well as in the place of its appearance, and may occupy merely the

surface of the skin, leaving pits. It may come out in successive crops on the body, after it has reached its height on the face, which may be on the fourth day, or protracted to the sixth or seventh, or even later." Marson, in Reynolds' System of Medicine, 1879, also dwells on the aptitude of fresh crops of pustules to appear while others are shrivelling and dying off, and some writers of the present day also make reference to this form of eruption.

Dr. Garrison denies the appearance of pustulation in all but one of the cases seen by her. While this is not in accordance with the testimony of three physicians practicing in the city who have seen several of the cases in question and pronounced the eruption smallpox of a characteristic type, it is nevertheless a fact that pustulation does not always appear in smallpox of the modified type. As stated by Mac Combie in his masterly description of this form of the disease, in Allbutt's System of Medicine, 1897 (one year prior to the occurrence of the American-Spanish war with its attendant train of "Cuban itch" and "Puerto Rican chicken-pox"), some of the papules abort without becoming vesicles, and in *many patients* (italics mine) the vesicles do not become pustules, but desiccate unruptured.

In fact, as Dr. Hyde in his very able article, which has evoked the criticism of Dr. Garrison, very aptly says: "there are no novel phenomena to be noted in the prevalent epidemic. Expert physicians in England, Germany, France and Australia have long since investigated and expounded every one of the symptoms that have in this day bred so much indecision and confusion in the minds of observers."

While demonstrating that the eruption described by Dr. Garrison could have been present in the patients treated by her, and yet not in the least serve to confirm the diagnosis she makes, I deem it only proper to state, that during my three days' sojourn in the infected municipality, no eruption of this character was brought to my notice. All the cases seen by me—and I inspected several—presented a well defined variolous

eruption either papular, vesicular or pustular; both discrete and confluent. There was no "mixed infection," no successive crops of lesions, no simultaneous appearance of papules and vesicles. My experience agrees with that of Dr. Nelson who preceded me and remained five days in the city, and with that of Dr. Heman Spalding who remained in the city for several hours. Dr. Hyde too, was no more fortunate in his observation of the group of "selected cases" (selected as varicella) which he was invited to see.

The disease which Dr. Garrison calls chicken-pox, affected all ages alike, and many of the cases treated by her and other physicians who claim the disease to be varicella, occurred in adults. If this diagnosis were correct, the physicians in question have been afforded opportunities which have not fallen to the lot of many clinicians at home and abroad, the vast majority of whom have yet failed to find a case of chicken-pox in an adult.

In conclusion again quoting from Dr. Hyde, "the prevalent epidemic is one of smallpox. To refuse to accept this fact is to be guilty of egregious folly and to commit a dangerous blunder." To this blunder furthermore, this refusal of physicians to accept the diagnosis of smallpox made by those who are conversant with the disease in all its forms and modifications, is due in a great measure the spread of this disease in Illinois. This attitude with the hackneyed cry entirely devoid of truth that the disease attacks the recently vaccinated and the unvaccinated alike, has supplied abundant ammunition to those opposed to vaccination, has undermined public opinion, has furnished to timorous officials a justification for inaction, and has caused the patients in question, and especially those by whom they are immediately surrounded, to hold in utter contempt and willfully disregard all quarantine regulations established. As a natural consequence the smallpox has spread from house to house, from town to town. The responsibility for this rests not upon the persons by whom the germs of the disease were carried, but

upon physicians, who, although confronted by palpable and incontestible evidence to the contrary, have taken upon themselves to pronounce the disease chicken-pox and harmless in character, and to cast discredit on the diagnosis made by qualified practitioners.

J. A. Egan.

Springfield.

SMALLPOX IN ILLINOIS.

Despite the most strenuous efforts of the State Board of Health outbreaks of smallpox have materially increased in extent in the State during the past month. Owing to the energy displayed in quarantine, vaccination and disinfection, the number of cases existing in January have been greatly decreased, but new foci of infection are developing daily in municipalities hereto immune. This is thought to be due to the negligence in establishing and maintaining quarantine in localities where the diagnosis was disputed.

From the best information obtainable it is believed that over one thousand cases have occurred during the past three months in the following counties: Alexander, Bond, Boone, Bureau, Christian, Clinton, Cook, Cumberland, DeWitt, Douglas, Fulton, Gallatin, Hamilton, Hardin, Henderson, Henry, Iroquois, Jackson, Jefferson, Johnson, Lee, Livingston, Macon, Macoupin, Madison, Massac, McHenry, McLean, Morgan, Ogle, Perry, Piatt, Pope, Pulaski, Randolph, Rock Island, Saline, Sangamon, St. Clair, Schuyler, Shelby, Union, Whiteside, Williamson and Winnebago.

As a rule the type of the disease prevailing is the modified form of smallpox so well described by MacCombie in Allbutt's System of Medicine in 1897, and by Welch and Hyde in 1899. Many cases, however, are of the classical and recognized form of discrete and confluent smallpox. Eleven deaths have been reported, occurring in Alexander, DeWitt, Lee, Piatt, Saline and Williamson counties, the disease in each instance being of the confluent type.

There is also a wide spread epidemic of smallpox in other States, particularly in the

adjoining states of Indiana and Kentucky. It will be noted that all counties in Illinois bordering on the latter are affected. That good reasons exist for this is evidenced by the following editorial from the daily press:

"In addition to the political perils which threaten civil institutions in Kentucky, the State is in serious danger of a wide-spread epidemic of smallpox. The disease is already prevalent in thirty-five counties, in some of which 50 per cent of the inhabitants have been stricken. The State Board of Health is entirely without funds to fight the pestilence, dozens of local health officers are resigning and practically nothing is being done to check the spread of the disease. The situation in this respect is as disgraceful to Kentucky as the political strife which is rapidly sweeping her into a condition of civil war."

The State Board of Health urgently requests the cooperation and assistance of the physicians of the State in the suppression of the present outbreak of smallpox. Each practitioner is particularly requested to use his influence with the health authorities and others concerned to secure the vaccination or revaccination of all persons in his vicinity.

The Board will furnish carefully selected and fresh vaccine from the best houses, either in capillary tubes or ivory points at actual wholesale cost, about 3 or 4 cents each, in packages of ten tubes or points. Supplies will also be furnished in limited quantities, free of charge, to physicians who will undertake to secure the vaccination of those unable to pay for the service.

ANOTHER WARNING.

Springfield, Ill., Feb. 15, 1900.

To the Local Health Authorities of Illinois:

Small-pox, of the existence of which, in Illinois this Board has issued repeated warnings, continues to increase in frequency throughout the State, and at the present time prevails to a somewhat alarming extent. It is believed that during the past three months over 1,000 cases of this disease

have occurred in the State, causing much sickness and suffering, some deaths, interruption to travel, interference with business, the closing of schools, churches and other places of assemblage, and an inestimable financial loss.

The disease prevalent is happily of a modified type, causing but few fatalities. It may, however, assume the most virulent form within a month, and through the influence of the wide dissemination of the germs of small-pox create an epidemic involving the loss of thousands of lives.

There is no excuse for the spread of small-pox. It is a preventable disease, and one easily subject to control.

Vaccination properly performed and duly repeated is a safe and positive protection against small-pox. This disease will not and cannot spread in a well vaccinated community. Vaccinal protection lasts often for years, but revaccination, whenever small-pox is prevalent in a community, will continue this protection indefinitely.

No danger can result from vaccination properly performed under aseptic conditions with pure virus. This Board advises the exclusive use of glycerinated lymph.

All available statistics on the subject prove beyond controversy or doubt the efficacy of proper vaccination. Through its beneficent influence, small-pox has been almost entirely eradicated in countries in which vaccination is compulsory. In localities in which vaccination is generally observed, the disease, although appearing at intervals, rarely gains headway. A municipality infected with small-pox can limit the spread of the disease to the patients affected and to persons already exposed. The contagion will necessarily become extinct if the remainder of the inhabitants are vaccinated. This fact was proven recently in a city of Illinois, in which, during the past three months, there have been over 600 cases of small-pox. The disease continued to increase until a system of vaccination was instituted by the State Board of Health. Within a short time after the vaccination was well under way, there was a marked decline in the epidemic, which con-

tinued until the disease almost entirely died out for want of unvaccinated individuals on whom to prey.

There is no small-pox in the island of Puerto Rico. In January, 1899, there were several thousand cases. As a result of an order of the Governor General promulgated on January 21st, 1899, 790,000 persons have since been vaccinated, and the disease has been entirely stamped out.

Physicians, nurses and attendants in small-pox hospitals rarely contract the disease. Their sole protection is vaccination.

The Illinois State Board of Health desires to secure this protection for the commonwealth now, before the disease becomes epidemic in every county, and therefore enjoins upon you the adoption of measures best calculated to this end. In addition to warning those over whom you exercise jurisdiction, of the danger existing, and pointing out the measures whereby the occurrence of the disease may be obviated, every effort should be made to induce owners or managers of factories and business establishments, and all employers of labor to demand of those in their service, as a condition of further employment, an evidence of proper and successful vaccination. Especially should efforts be made to procure the vaccination of children who are particularly susceptible to the contagion of small-pox.

This is necessary, not only for the protection of the lives and health of your people, but also of your business interests. One case of small-pox may cost your municipality thousands of dollars.

J. A. Egan, M. D., Secretary.

C. B. Johnson, M. D., President.

Chicago News Items.

The will of Dr. Albert E. Hoadley was filed for probate recently. He left an estate valued at \$50,000. Of this \$40,000 is personal property. An annuity of \$1,000 is provided for the widow and \$300 to his sister, Laura E. Thomas. After Mrs. Hoadley takes the medical instruments and the

books she wants, the rest are to be given to Dr. Richard Fyfe. The estate is left in trust to the Northern Trust company. After the death of the widow and sister the estate is to be divided among relatives.

A corps of surgeons left Feb. 11 for red cross service in the Boer army, South Africa. The following composed the corps:

J. R. McNamara.

A. F. Conroy.

J. J. Slattery.

Hubert McAuley.

Ross D. Long.

J. F. Aderhold.

All of Chicago.

Judge Baker refused the motion for a new trial for Dr. Louise Hagenow and sentenced her to imprisonment in the penitentiary for an indefinite term. The woman was convicted of manslaughter in causing the death of Marie Hecht. Under the new law she may be kept in the penitentiary for many years.

The lease of the College of Physicians and Surgeons to the University of Chicago for twenty-five years was filed recently. The terms have been published. The rental of the property at Harrison and Monroe streets is \$12,000 a year. The property will be transferred on May 1, 1925, if the amount of the medical college purchase and endowment fund shall have amounted to the purchase price.

PRACTICE AND DIPLOMA MILLS.

The newspapers announce that one of the "doctors" who was refused a certificate by the Wisconsin Board of Medical Examiners has commenced suit against the members of the Board to compel them to issue him the coveted certificate. The "college" which gave the complainant a diploma is assisting in the prosecution, and he is likewise being backed by others who have a grievance against the Board and the principles it represents. The question arises: What are the physicians of Wisconsin doing to aid the Board in its fight? There is

in Chicago a man who has been making money by running a diploma mill and selling diplomas. He has been at it for years, under one plan or another, and has found the occupation decidedly profitable, and an easy way of making a living. The present medical practice act of Illinois having taken away this man's calling he has organized a medical liberty (?) league, or something of the kind, for the purpose of fighting the Illinois State Board of Health and the medical laws of the State. United with him are those who oppose everything which tends to raise the standard of education in the medical profession, and again the question arises: What are the physicians of Illinois doing to assist the Board in the fight?—*Journal A. M. A.*, Feb. 3, 1900.

Since the above was written the Wisconsin Board has been defeated in a jury trial as indicated by the following dispatch:

"Kenosha, Wis., Feb. 20.—The jury in the case brought by the Wisconsin State Board of Medical Examiners against Dr. Paul Malmstrom to prevent him from practicing without a certificate today found for the defendant, returning a verdict of "not guilty." The arrest of Malmstrom was made by the State officials in order to test the law recently passed giving the Medical Board power to discriminate against the graduates from a certain school in Chicago known as the Independent Medical College. The case was hard fought by the State Board. The effects of the decision of the jury will be far-reaching, as several graduates of the same school are now making an effort to practice in this State. Dr. Malmstrom has filed mandamus proceedings against the Board to compel the issue of a certificate."

In this connection the following item from a Chicago paper of last December will be interesting:

"Delegates gathered at the People's institute yesterday morning to attend the semi-annual convention of the National Association of Liberal Physicians and Surgeons. The organization has for its object the breaking down of what is termed the "despotism" practiced by the various state

boards of health and securing the repeal of the statutes requiring the examination and the granting of licenses to men and women who desire to heal the sick. Representatives of these schools of medicine are in attendance: Physio-medical, homeopathic, osteopathic, hydropathic, and eclectic. The claim is made that there are more than 40,000 men and women in the country practicing medicine without licenses from the boards of health who are eligible for membership in the organization. The convention will last four days, and the officers expect that hundreds of new names will be added to the rolls before adjournment."

Medical Miscellany.

The Supreme Court has sustained the law requiring all barbers in Minnesota to have licenses, which has been the subject of contest for two years. It is held that there is as much necessity for a law requiring the maintenance of cleanly barber shops as there is for those regulating the practice of dentistry, law, medicine or plumbing.

The people of Wabash county hope that in the event of the establishing of an epileptic colony it will be located in their county. Dr. J. B. Maxwell, of Mt. Carmel, Ill., has been working on this line for several years and trusts that now the importance of this method of taking care of this unfortunate class will be adopted by the State.

Cleveland has an Appendicitis Club, to be eligible to which it is necessary to have a surgeon's certificate that the applicant has undergone an operation for that disease. The Chicago Daily News suggests that another operation on their brains would be interesting to the general public as showing what quality of gray matter, if any, goes to the formation of the nominal thinking apparatus of the members.

ANOTHER REMUNERATIVE HUMBUG.—Christian Science is not the only humbug

that proves very remunerative to its professors. In a town in Missouri there is a College of Magnetic Healers, that instructs persons at the rate of \$100 for ten lectures; they then graduate full-fledged professors. These people teach that "God is sexual," "Man in the sixth stage of clairvoyance becomes omnipotent," "Know all things," "Jeremiah and Isaiah and other prophets were clairvoyants." The principal ministers of the place have passed resolutions warning the public, describing the system as an ignorant compound of spiritualism, clairvoyance and Christian Science.—New York Christian Advocate.

UNCORRECTED ERRORS OF REFRACTION. In a paper in the Glasgow Medical Journal Dr. Buchanan insists on the importance of having errors of refraction of the eyes accurately corrected. After enumerating numerous symptoms and signs of overwork of the eyes from this source he shows how they may be warded off by care and foresight in having recourse to the expedient of Kirkpatrick making "Siccar." He preaches to parents the duty of having a "careful examination made of the eyes of all children who, by complaint or action, indicates that their visual powers are not perfectly healthy."

The latest craze in the faith cure line has developed in Maine, as shown by the following from the New York World. Medical men who attended the International Medical Congress at Moscow, and visited the Greek church monastery at Troitsa, will be reminded of the continuous prayers over the "incorruptible remains of St. Sergius," which are said to have been kept up for more than a century. Between prayers oil from a silver cruse which rests on the saint's body is dispensed to the faithful at so much per vial, and is believed by them to be a sovereign remedy for all human ills.

"There is one spot in the United States, so far as is known one only, where the voice of prayer is never still.

For more than twenty months the "turret of prayer" that surmounts the "Tem-

ple of Truth," near Lisbon Falls, Me., has never for an instant been without the sound of a human voice in supplication. And it is the intention of the good people who attend to this remarkable form of worship that prayer in the turret shall never cease so long as the building shall stand.

The author of the custom is the Rev. Frank W. Sanford, leader of the "Holy Ghost and Us Society." The society affiliates with no denomination and tries to conform strictly to the teachings of the Bible. Starting without a penny, it has in a few years achieved such success that it has built four buildings, the "Temple of Truth" among them, which form a rectangle capable of seating 20,000 persons.

The life here is quite in the spirit of a religious revival. Conversions are made, and the sick healed by prayer every day in the year. The students of religion who make their home here take turns at sustaining the never-ending prayer in the great turret.

On the roof of the temple are twelve other little turrets, in each of which, when the number of students becomes large enough to admit of it, prayer will be kept up continually. The idea is that each turret shall represent one of the twelve tribes of Israel.

The largest turret of all is called, the Rev. Mr. Sanford said, "the power turret." Nobody will pray in that turret but men; it will be a place for warriors to prevail with God.

"I believe it won't be long before every room here will be occupied by two students; there will be from 1,000 to 1,200 gather in these halls to read the entire word of God and go out to practice it."—New York World.

VETERINARIANS ON TUBERCULOSIS.

The Illinois Veterinary Association held its eighteenth semi-annual meeting Feb. 21 at the Leland Hotel, Springfield. A large number of practitioners from various parts of the State were in attendance. Several

papers were read by the members of the association, the principal one being on "Tuberculosis." The subject was treated by Dr. V. G. Hunt, of Arcola, who spoke of the disease in dairy cattle.

It was the general opinion of those present that the legislature should enact some law compelling the test of dairy cattle that supply the cities and towns with milk, as tuberculosis is largely prevalent in dairy cattle. Doctor Hunt said it was known among medical men that the disease can be contracted by a human through using milk from diseased cows. This, he said, was especially true of infants.

The next meeting will be held Nov. 14 and 15 in Chicago.

PLAGUE COST HONOLULU \$1,000,-000.

Honolulu, Feb. 2.—Now that the plague is practically stamped out, no deaths having occurred for eight days, the question of what the quarantine and inspection have cost is coming to the front, to say nothing of the loss through interruption of business. The expenses the plague have entailed have been enormous. The military establishments alone costs about \$1,300 a day. In addition to this, the guards and inspectors employed by the board of health have until lately cost fully half as much more. For nearly a month the government supplied rations to about 1,900 persons in the quarantined district. The 10,000 people who have been or are in isolated barracks are provided at government expense. The barracks themselves, built to meet an emergency, were necessarily expensive. Upward of 8,000 people have been rendered homeless by the burning of buildings. Many lost their all, and will for some time continue to be a charge upon the government. Then there is the value of the property destroyed, including both buildings and an immense amount of household goods and merchandise. No one has as yet dared to make an exact estimate of what the plague will cost the public treasury, but it can not be far under \$1,000,000.

NOTICE.

Dr. Willis O. Nance will present a paper on "Lachrymal Stricture," which will be discussed by Dr. W. H. Wilder and Dr. A. T. Haight.

Dr. F. Henrotin will present a paper on "Some Interesting Details Regarding Septic Diseases of Women." The discussion will be opened by Dr. Emil Ries, Dr. T. J. Watkins and Dr. Renber Peterson.

TO PARIS.

In view of the fact that accommodations on the "City of Rome" which has been chartered for our "Physician's Party," were being taken so rapidly I thought it advisable to have a number of berths reserved for a short time. Those wishing to avail themselves of this additional opportunity will do well to make application at once.

J. W. Pettit.

Ottawa, Ill., Feb. 27, 1900.

Letters each with enclosure have been received from:

P. L. Dieffenbacher, Havana.
Otis Johnson, Quincy.
P. M. Burke, LaSalle.
W. M. Friend, Sumner.
B. W. Sippy, Chicago.
I. Clark Gary, Chicago.
E. C. Lemen, Upper Alton.
John A. Robison, Chicago.
W. S. Sterrett, Marseilles.
Fernand Henrotin, Chicago.
M. F. Williamson, Joliet.
Cynthia A. Skinner, Monmouth.
Ben Hudson, Scottville.
Jas. A. Marshall, Pontiac.
A. P. Rockey, Assumption.
B. F. Uran, Kankakee.
S. R. May, Mt. Zion.
J. B. Bacon, Macomb.

Marriages, Deaths, Change of Address

MARRIAGES.

- Dr. Chas. Osborne and Miss Eleanor Kerr, at Nokomis, Feb. 16.
 Dr. H. S. Corley, of Tower Hill, and Miss Edith Emerson Conner, daughter of Dr. J. J. Conner, of Pana, Feb. 14.
 Dr. Arthur Robin Edwards, of Chicago, and Miss Susannah T. Harrison, of Troy, N. Y., at Rome, Italy, Feb. 15. Dr. and Mrs. Edwards will remain abroad until May 1.
 Dr. William W. Goldnamer and Miss Florence Pauline Fischer, of Chicago, Feb. 14. Dr. and Mrs. Goldnamer have gone South on a wedding trip.
 Dr. Hugh F. Armstrong, of Dixon, and Miss Gertrude Crawford, of Decatur, at Decatur, Feb. 21.

DEATHS.

- Allen, H. R., Chicago, formerly of Indianapolis, and proprietor of the National Surgical Institute.
 Bryant, W. W., Sycamore.
 Crocker, Henry A., Payson.
 De Veny, Mary C., wife of Dr. S. C. De Veny, 2542 Indiana ave., Chicago, Feb. 5.
 Duncan, W. W., Louisville, aged 71, Feb. 1.
 Ellis, L. S., Chicago, aged 72, Feb. 12.
 Garretson, Peter H., Peoria.
 Gore, J. R., Chicago, aged 89, Feb. 25.
 Hoadley, Albert E., Chicago.
 Obituary.—We announce with great regret the death of Prof. Edward L. Holmes, aged 72, a life member and one of the strong pillars of the State Society, at Chicago, Feb. 11, 1900. An appropriate sketch of his life will be read at the approaching annual meeting by the committee on necrology.
 Keeley, Leslie E., of Dwight, at Los Angeles, California, aged 68. His estate is estimated at \$1,000,000.
 Kingston, T. A., Jerseyville.
 Lincoln, Samuel W., Moline, Feb. 7, aged 44.
 Rice, C. S., Disco.
 Sangree, E. B., Chicago, aged 36, Feb. 21.
 Scott, Crafton, Lincoln.
 Shirley, E. S., Xenia, Feb. 1, aged 73.
 Smead, Robert, Altona, aged 61 years, while attending a patient Sunday night was stricken with paralysis and died.
 Tanner, E. J., Chicago, aged 36.
 Tefft, Leslie Eugene, Elgin.
 Van Riper, M. H., Kankakee, Jan. 29, aged 67.

CHANGES OF ADDRESS.

IN CHICAGO.

- Butler, W. H., 1361 to 1485 Jackson Boul.
 Elmer, J. W., 154 E. 25th st. to N. W. Univ. Med. School.
 George, A. B., 683 Van Buren st. to 204 S. Lincoln st.
 Grace, R., Windemere Hotel to 750 Grace st.
 Hillebrand, H. T., 779 W. Wrightwood ave. to 863 Armitage.
 Hurlbut, S. R., 320 LaSalle ave. to 1243 E. Ravenswood Park.

- Lewis, Henry F., to 103 State st.
 Lamerton, W. E., 325 S. Hermitage to 384 S. Paulina st.
 Lobdell, Effie, to 169 Clark st.
 Peterson, W. A., 3129 to 3046 Wentworth ave.
 Smith, A. M. B., 720 Adams to 879 Jackson Boul.
 Van Derslice, J. W., Venetian Bldg. to Medinah Temple.
 Watkins, T. J., 3625 Indiana ave. to 3564 Grand Boul.
 Wallace, T. A., 6658 Wentworth ave. to 170 E. 79th st.

TO CHICAGO.

- Allen, T. G., Aurora to 338 E. 57th st.
 Berg, L. M., 309 W. 57th st. New York City to 2236 Michigan ave.
 Beardsley, J. A., Rock Island to 6405 Eggleston ave.
 Piper, E. D., Waukegan to 2116 W. Monroe st.
 Seymour, W. F., Reedsburg, Wis., to 357 LaSalle ave.

FROM CHICAGO.

- Aderhold, J. F., to South Africa.
 Conroy, A. F., to South Africa.
 Graham, D. W., to Europe, temporarily.
 Long, R. D., to South Africa.
 McNamara, J. R., to South Africa.
 McAuley, Hubert, to South Africa.
 Montgomery, W. T., to Europe, temporarily.
 Small, H. E., to Sterling.
 Seymour, W. F., to Polo.
 Slattery, J. J., to South Africa.

CHANGES FROM ILLINOIS.

- Brown, H. B., Lincoln to De Land, Fla.
 Fowler, E. S., Springfield to Eureka Springs, Ark.
 Owens, D. W., Hersman to Colorado Springs.
 Steele, H. R., Paw Paw to Northampton, Mass.
 Thompson, Wm., Cerro Gordo to Kansas City.
 Wilson, R. M., Lincoln to New York City.

CHANGES TO ILLINOIS.

- Bennett, S. B., Los Angeles, Ca., to Fairview.
 Brockhausen, B. E., Lansing, Ia., to Freeport.
 Michener, A., Marshall, Mich., to Geneva.
 Nolan, E. C., Iowa to Mt. Pulaski.
 Riggs, Colorado to Mt. Pulaski.
 Thompson, St. Louis, Mo., to Nilwood.

CHANGES IN ILLINOIS.

- Adles, W., Pinckneyville to DuQuoin.
 Bair, Edw., to Carmi.
 Bechtold, A. F., Forest City to Belleville.
 Blackburn, M. H., Dover to Ray.
 Buckholtz, to Keensburg.
 Craig, C. M., Tolono to Champaign.
 Davis, Elias, from Nilwood.
 Flint, O. J., to Princeton.
 Gray, G. C., Glenarm to Smithboro.
 Grear, A. P., Murphysboro to Sandusky.
 Hess, David L., Barnett to Hettick.
 Johnstown, W. W., Chicago Heights to Cameron.
 Matheny, Z. E., Fairland to Parkville.
 Legier, John, Carmi.
 Pearson, O. G., Kasbeer to Arlington.
 Taylor, Walter, Farmingdale to Tallula.
 Vernon, to Farmingdale.
 Wright, Emily, remains in Rock Island.

CALENDAR OF MEDICAL SOCIETIES.

City.	President.	Secretary.	Time and Place of Meeting.
Chicago Medical Society.....	J. C. Hoag, Chicago.	Arthur R. Edwards, Chicago.....	Every Wednesday evening
Chicago Pathological Society.....	Ludwig Treckton, Chicago.....	George H. Weaver, Chicago.....	2nd Monday of each month
Chicago Gynecological Society.....	Thomas J. Watkins, Chicago.....	Wm. H. Rumpf, Chicago.....	3rd Friday of each month
Chicago Ophthalmological & Otolgic Soc.	Lyman Ware, Chicago.....	C. P. Pincard, Chicago.....	2nd Tuesday of each month
Chicago Neurological Society.....	Richard Lewis, Chicago.....	Sydney Kuhn, Chicago.....	No regular meeting
Chicago Medical Examiners.....	Denslow Dewey, Chicago.....	Wm. L. Baum, Chicago.....	Quarterly
Demonstrator's Association of Chicago.....	H. A. Hadley, Chicago.....	M. L. Harris, Chicago.....	2nd Monday of each month
Decatur Medical Society.....	Wm. J. Chenoweth, Decatur.....	W. C. Wood, Decatur.....	Monthly
North Chicago Medical Society.....	Carl Wagner, Chicago.....	J. N. Washington, Chicago.....	Monthly
Ottawa City Medical Society.....	J. C. Hathaway, Ottawa.....	Wm. A. Pike, Ottawa.....	Monthly
Peoria City Medical Society.....	O. J. Koskoton, Peoria.....	N. M. Sedgwick, Peoria.....	Monthly
Physician's Club of Chicago.....		Wm. H. Wilder, Chicago.....	Monthly
County.	President.	Secretary.	Time and Place of Meeting.
Adams County Medical Society.....	Frank E. Tull, Quincy.....	W. W. Williams, Quincy.....	Monthly, on 2nd Monday at Quincy
Bureau County Medical Society.....	S. W. Hopkins, Walnut.....	A. E. Owens, Princeton.....	2nd Thursday of Nov. and May
Bond County Medical Society.....	R. P. Coop, Greenville.....	C. C. Gordon, Greenville.....	Meets in September and April
Clinton County Medical Society.....	W. T. Gordon, Carlyle.....	M. Brocings, Carlyle.....	May, Aug., Nov., and Feb., at Carlyle
Champaign County Medical Society.....	T. J. McKinney, Gifford.....	J. C. Poidds, Toluono.....	Monthly at Champaign
Crawford County Medical Society.....	W. H. Hoskinson, Trimble.....	John Weir, West Union.....	2d Thurs. in July, Sept., Nov., Jan. & May
DeWitt County Medical Society.....	D. W. Edmiston, Clinton.....	John A. Tyler, Clinton.....	2d Tuesday in Jan., April, July and Oct.
Fulton County Medical Society.....	E. W. Regan, Carthage.....	D. S. Ray, Cuba.....	1st Monday in May at Carthage
Hancock County Medical Society.....	Wm. Roaz, Carthage.....	R. L. Casburn, Carthage.....	Annually, 3rd Tuesday in April
Kankakee County Medical Society.....	Geo. H. Lee, Kankakee.....	J. H. Roy, Kankakee.....	3d Tues. in April and Oct. at Carlinville
LaSalle County Medical Society.....	Wm. G. Putney, Seneca.....	E. H. Butterfield, Ottawa.....	1st Thursday of each month at Bloomington
Macoupin County Medical Society.....	J. S. Collins, Le Roy.....	J. P. Matthews, Carlinville.....	In March and September at Waterloo
McLean County Medical Society.....	E. E. Sargent, Le Roy.....	E. J. Hyndman, Bloomington.....	2nd Thursday, Metropolis
Monroe County Medical Society.....	H. Gantor, Floriole.....	L. Adelsinger, Waterloo.....	2d Tuesday of each month at Jacksonville
Massac County Medical Society.....	S. J. Rhodes, Metropolis.....	C. E. Trovillion, Metropolis.....	1st Wednesday in January and July
Morgan County Medical Society.....	W. C. Cole, Jacksonville.....	Edw. Rowe, Jacksonville.....	Monthly, on 2d Monday at Springfield
Ogle County Medical Society.....	G. M. McKenney, Oregon.....	H. A. Mix, Oregon.....	Annually
St. Clair County Medical Society.....	E. T. Raab, Belleville.....	J. P. Stack, E. St. Louis.....	1st Tuesday in June and December
Schuyler County Medical Society.....	J. A. Harvey, Rushville.....	C. W. Ball, Rushville.....	2nd Friday evening at Danville
Sangamon County Medical Society.....	Geo. N. Kreider, Springfield.....	E. P. Bartlett, Springfield.....	Quarterly
Stephenson County Medical Society.....	J. B. Letzell, Orangeville.....	J. F. Fair, Freeport.....	Annually
Shelby County Medical Society.....	Wm. J. Eddy, Shelbyville.....	A. G. Mizell, Shelbyville.....	2nd Tuesday of each month
Trit County Medical Society.....	M. S. Brown, Danville.....	A. G. Jones, Hoopston.....	Quarterly
Vermilion County Medical Society.....	W. A. Cochran, Danville.....	E. E. Clark, Danville.....	Annually
Will County Medical Society.....	G. M. Peard, Joliet.....	Thos. J. Wagner, Joliet.....	1st Tuesday in June and December
Winnebago County Medical Society.....	J. Schneck, Mt. Carmel.....	G. C. Kingsbury, Mt. Carmel.....	2nd Tuesday of each month
Winnebago County Medical Society.....	T. N. Miller, Rockford.....	J. H. Frost, Rockford.....	Quarterly
Warren County Medical Society.....	E. J. Blair, Monmouth.....	A. G. Patton, Monmouth.....	Annually
District.	President.	Secretary.	Time and Place of Meeting.
Ascensionian Society of the Wabash Valley.....	Z. T. Baum, Paris.....	H. McKennan, Paris.....	Terre Haute, Ind., in May
Brainerd District Medical Society.....	F. M. Coppel, Havana.....	Katherine Miller, Lincoln.....	4th Thursday of Jan., April, July and Oct.
District Medical Society of Central Illinois.....	Moses Haynes, Bingham.....	J. N. Nelms, Taylorville.....	Last Tuesday in April and October
Fox River Valley Medical Association.....	C. L. Smith, Aurora.....	C. M. Robbins, Aurora.....	At Elgin in May and at Aurora in Nov.
Galva District Medical Society.....	W. A. Grove, Galva.....	M. W. Hall, Kewanee.....	Annually 1st Tuesday in May at Galva
Medical & Surgical Society of Western Ill.....	H. W. Smith, Roodhouse.....	H. A. Chaplin, Whitehall.....	May 4th at Carrollton
Military Tracer Medical Association.....	E. J. Sutton, Canton.....	C. B. Horrell, Galesburg.....	At Kewanee
North Central Illinois Medical Association.....	H. M. Burke, LaSalle.....	Geo. A. Dicus, Streator.....	Annually, 1st Tuesday in December
South Central Illinois Medical Association.....	J. O. reCurry, St. Louis.....	C. G. Rayhill, Belleville.....	Semi-annually

ILLINOIS Medical Journal

The Official Organ
of the
State Medical Society



A Monthly Bulletin
Edited by the
Publication Committee

Printed by
THE ILLINOIS STATE JOURNAL COMPANY.

Entered in the Springfield Postoffice as Second-Class Matter.

Volume XLIX.
New Series, Vol. I. }
Number 10.

Springfield, Ill., April, 1900.

{ Subscription, \$3 a Year.
Single Copies, 25 Cents.

TABLE OF CONTENTS.

ORIGINAL ARTICLES.

The Present Law—J. W. Pettit, M. D., Ottawa.....	467
The Physician and the Medical Law—Hamilton C. Kibbie, M. D., Oblong.....	472
Drainage and Irrigation of the Pleura in Empyema. Conflict of Methods and Opinions—Edmund Andrews, M. D., Chicago.....	474
Ambulatory Treatment of Fractures—Chas. D. Lockwood, A. B., M. D., Chicago.....	477
Heredity—John Ross, M. D., Pontiac.....	481
Tuberculosis—C. A. Palmer, M. D., Princeton.....	482
The History of an Outbreak of Rabies, with Clinical Report of a Case in the Human Subject—James S. Mason, M. D., Rantoul.....	483
Direct Massage in the Treatment of Glaucoma—J. A. Pratt, M. D., Aurora.....	485
Erythromelalgia, or S. Weir Mitchell's Disease—W. J. Eddy, M. D., Shelbyville....	486
Mastitis in Puerperal Women—Theodore Thompson, M. D., Shelbyville.....	489

EDITORIALS.

Important Notice.....	494
The Organization of the Profession.....	494
The Society, the State Board of Health, and the Law.....	495

CORRESPONDENCE.

The Dixon Epidemic—Harriet E. Garrison, M. D., Dixon.....	497
Peoria Out for the Next Meeting—J. W. Hensley, M. D., Peoria.....	497

COUNTY AND DISTRICT SOCIETIES.

Crawford County Medical Society.....	498
Decatur Medical Society.....	498
Vermilion County Medical Society.....	499
Peoria City Medical Society.....	499
Adams County Medical Society.....	500
Sangamon County Medical Society.....	501

STATE BOARD OF HEALTH ITEMS.

Small Pox in Illinois.....	492
Vaccination of School Children.....	493
Notice of Examinations.....	506

State Items.....	503
Chicago News Items.....	505
Items.....	508
Notice of Springfield Meeting..	507
Call for Meeting at Jacksonville.....	493
Acknowledgments.....	508
Marriages, Deaths, Changes of Address....	509
Calendar of Medical Societies.....	511

Next Annual Meeting

Will be held in **Springfield** the

Third Tuesday of May

AND TWO SUCCEEDING DAYS (Viz: 15th, 16th and 17th), 1900.

Officers and Committees for the Year 1899-1900.

OFFICERS:

HAROLD N. MOYER, Chicago.....PRESIDENT
J. T. McANALLY, Carbondale.....FIRST VICE PRESIDENT
WELLER VAN-HOOK, Chicago.....SECOND VICE PRESIDENT
EDMUND W. WEIS, Ottawa.....PERMANENT SECRETARY
B. B. GRIFFITH, Springfield.....ASSISTANT SECRETARY
GEORGE N. KREIDER, Springfield.....TREASURER

SECTION ONE.

PRACTICE OF MEDICINE, MEDICAL
SPECIALTIES, MATERIA MEDICA AND
THERAPEUTICS.

H. C. Mitchell.....Chairman
Carbondale.
Charles D. Center.....Secretary
Quincy.

SECTION TWO.

SURGERY, SURGICAL SPECIALTIES,
AND OBSTETRICS.

Denslow Lewis.....Chairman
5100 Madison Ave., Chicago.
C. E. Black.....Secretary
Jacksonville.

SECTION THREE.

ETIOLOGY, STATE MEDICINE AND MED-
ICAL JURISPRUDENCE.

George F. Butler.....Chairman
Chicago.
W. J. Fernald.....Secretary
Rantoul.

COMMITTEE ON MEDICAL LEGISLATION.

J. W. Pettit, Ottawa, Chairman.
Joseph Robbins, Quincy.
W. H. Wilder, Chicago.
J. A. Egan, Springfield.
The President, Ex-Officio.

COMMITTEE ON NECROLOGY AND BIOGRAPHY.

John H. Hollister, Chicago.
O. B. Will, Peoria.
E. J. Brown, Decatur.

COMMITTEE ON MEDICAL SOCIETIES.

C. W. Hall, Kewanee.
J. A. Baughman, Neoga.
J. O. DeCourcy, East St. Louis.

COMMITTEE ON REGISTRATION. (Ex-Officio.)

George N. Kreider, Springfield.
B. B. Griffith, Springfield.

EXECUTIVE COMMITTEE. (Ex-Officio.)

H. N. Moyer, Chicago.
Edmund W. Weis, Ottawa.
E. P. Bartlett, Springfield.
H. C. Mitchell, Carbondale.
Denslow Lewis, Chicago.
Geo. F. Butler, Chicago.

COMMITTEE ON PUBLICATION.

Edmund W. Weis, Ottawa.
H. N. Moyer, Chicago.
George N. Kreider, Springfield.

COMMITTEE ON ARRANGEMENTS. Springfield.

E. P. Bartlett, Chairman, Sp'g'd.
J. N. Dixon, Springfield.
O. B. Babcock, Springfield.
C. M. Bowcock, Springfield.
B. B. Griffith, Springfield.

COMMITTEE ON SOCIETY HISTORY.

N. S. Davis, Chicago.
Robert Boal, Lacon.
DeLaskie Miller, Chicago.
E. Ingals, Chicago.
J. H. Hollister, Chicago.
Edmund Andrews, Chicago.
T. D. Fitch, Chicago.
L. G. Thompson, Lacon.

JUDICIAL COUNCIL.

C. C. Hunt, Dixon.
Hugh T. Patrick, Chicago.
C. DuHadway, Jerseyville.
J. F. Percy, Galesburg.
James L. Reat, Tuscola.
C. E. Black, Jacksonville.
E. P. Cook, Mendota.
D. W. Graham, Chicago.
O. B. Will, Peoria.

Permanent Secretary's Office, Ottawa.

The Illinois Medical Journal.

The Official Organ of The Illinois State Medical Society.

VOL. XLIX.
New Series, Vol. I. }
No. 10.

Springfield, Ill., April, 1900.

{ SUBSCRIPTION
\$3.00 A YEAR.

THE PRESENT LAW.*

BY J. W. PETTIT, M. D., OTTAWA.

The merits of a reformatory law should not be judged by its provisions alone, but also by the conditions surrounding its enactment.

Four years ago, when the legislative committee of the Illinois State Medical Society entered upon the task of securing the enactment of a new medical practice act, we were confronted by conditions which could not be ignored. Our object was to elevate the standard of medical education and suppress quackery. We knew that to accomplish this we must have the active support of the profession. We found there were about 9,000 licensed physicians in the State. Of these about 6,600 held diplomas or other credentials from regular, 1,600 from homeopathic, and 800 from eclectic medical colleges.

Profiting by the experience of the past and recognizing the injustice of any law which would exclude the two last named schools from practice, as also the very practical fact that any attempt to ignore them meant sure defeat, we invited these gentlemen through their respective State organizations to unite with us. Accordingly committees were appointed to represent these two schools. That feeling of prejudice and distrust which very naturally grew out of past conflicts between the 'pathies was soon overcome when these gentlemen saw that we were acting in perfect good faith toward them. This feeling of confidence gradually extended until now it seems to pervade the best elements of the three schools, leaving nothing but the very feeble barrier of a name to divide us. We asked the State Board of Health to unite with us and, after proper organization of

the joint committees, began our work. We called to our assistance one of the ablest lawyers of the State, whose counsel enabled us to avoid those legal errors which medical men so commonly ignore in their attempts at law-making, thus preventing the enactment of their proposed laws, or resulting in ultimate defeat when subjected to the test of a judicial decision.

After many conferences and much hard work, we succeeded in formulating a bill which embodied all that in our judgment could safely be attempted at that time. This was submitted to every licensed physician in the State with an explanation of the essential features of the bill. In our simplicity we supposed that that something which we are pleased to call "professional sentiment" was an entity, and upon that we placed our reliance for support. To our dismay and chagrin we found the profession in hopeless confusion. By far the larger portion were so apathetic they made no response whatever. Others insisted as a condition of their support upon incorporating some non-essential or illegal provision, or the omission of some essential feature which would destroy the symmetry of the bill. Still others had no faith in legislation as a means of elevating the profession. Another class made up largely of professors in medical colleges, who were influential by reason of their position, saw that if the movement were successful it would be likely to spread to other States, and ultimately drive the poorly equipped and illegitimate colleges out of existence. While the diploma mill teacher was shrewd enough to see in the movement a menace to his business, the teachers of the better class of colleges failed for some unaccountable reason to come to our support. Out of all the teachers in this great medical center, which yearly turns out a small army of graduates, less than half a dozen came to the support of

*Address before the Physicians Club, Chicago, Jan. 29, 1900.

the committee, and some of the very best men in this city arrayed themselves in open hostility.

There were a few men, however, scattered throughout the State who, recognizing the low state of professional morals which existed, promised the committee their support. This was the nucleus around which, in the course of two years, we succeeded in affecting an organization of about four hundred or five hundred of the most public spirited physicians of the State. This was the small army who stood for what they conceived to be the best interests of the profession—less than one in ten of those holding diplomas from regular colleges alone.

Arrayed against us openly was an organized body of the most disreputable elements in the profession, with unlimited funds at their command, secretly aided by medical men and women in this city who pose as ethical and respectable practitioners, who desire the honors of the profession and the emoluments of the quack. In addition, we were confronted by christian scientists, divine and magnetic healers, etc., a much larger factor in the contest than medical men generally are willing to admit. These were the professional conditions we had to meet. In addition to these obstacles was that distrust of members of the legislature growing out of ill-advised attempts in the past, and that very reasonable and commendable spirit which prompts them to oppose any movement which has for its object the establishment of a State medicine; in other words, any law which does not allow the largest possible latitude in therapeutics consistent with public safety. This preliminary explanation of the obstacles the committee were compelled to overcome will, I trust, enable you to judge its merits more intelligently, and its defects more leniently.

The debasement of the diploma makes it necessary to separate the license from the degree. This is the corner-stone upon which medical reform rests. This feature we regarded as vital and would accept of no compromise. We had hoped to secure the establishment of an examining board,

but this was impossible. The vast amount of work, the examination of all candidates for practice will entail upon the Board of Health, will in the future demonstrate the necessity for their relief. Then we can secure a new board.

Section 11 provides, "The examination of those who desire to practice medicine and surgery in all their branches shall embrace those general subjects and topics, a knowledge of which is commonly and generally required of candidates for the degree of doctor of medicine, by reputable medical colleges in the United States." This definition avoids that unfortunate reference to schools which is a serious defect of medical laws in most of the States, and which provides an open door for every class of practitioners who care to contend for their constitutional rights.

A law which admits any class of practitioners by name is defective for the reason that it is class legislation, and class legislation, in this State is unconstitutional. This definition is clear, concise, comprehensive and admits of no cavil as to its meaning.

"The examination of those who desire to practice any other system or science of treating human ailments who do not use medicines internally or externally, and who do not practice operative surgery" is a legal excrescence which is ostensibly a concession to the osteopaths, but in effect is no concession at all. When the bill was being considered by the judiciary committee of the Senate, these fellows contended that they should be exempt because they were not practicing medicine. One of the senators very shrewdly asked if they did not regard an education as essential to the practice of medicine. They said they did and that they had schools with a regular curriculum embracing all the fundamental branches usually taught in medical colleges. We did not believe they were acting in good faith but took them at their word and suggested to the senate committee that they be admitted to practice on an examination of the branches they professed to teach, with a stipulation that they must not call themselves physicians, or administer medicine

internally or externally. They saw they had entrapped themselves and reluctantly consented. A few days later they introduced a bill substantially like the one vetoed by Gov. Tanner three years ago, but their insincerity had been made so apparent that no further notice was taken of them by the legislature. A few osteopaths who received their education at other medical colleges than their own, have taken the examination and been admitted to practice, but the number is too insignificant to cut any figure. This provision not only virtually excludes them from practice, but makes further legislation in their behalf impossible. Thus it will be seen we have them as completely bottled up as Sampson and Schley had the Spanish fleet in Santiago harbor. We succeeded in gaining by strategy what we would have lost in an open engagement.

The granting of certificates without examination to graduates from Illinois colleges, was one of those unfortunate provisions which we could not prevent. This was a necessary concession to certain members of the legislature who were friendly to our bill as a whole, but could not see the propriety of requiring graduates of first-class colleges to take a State examination. It was intended to exempt students of Rush, the Northwestern, P. & S., and colleges of that grade. We succeeded in making the provision optional, and after it became a law we induced colleges for whom the exemption was intended, to refuse to accept the privileges extended. This renders harmless what would otherwise be a fatal defect in the law.

That clause compelling midwives to be examined, and prevent them from prescribing when qualified under the law, is a most beneficent one. If enforced it will be the means of saving the lives of many puerperal women, particularly among the lower classes, who usually employ midwives.

In addition to the usual causes for revocation of licenses, we succeeded in including false or fraudulent advertising. Advertising *per se* cannot, as many physicians suppose, be made a misdemeanor, but false

or fraudulent advertising may. Take away from the quack advertisement the element of fraud in it, and it is of little value to the advertiser. This is the feature of the bill which the advertising quacks of Chicago raised a large corruption fund to defeat. They even went so far as to attempt to bribe our attorney, but through his honesty and the energy of our committee they were defeated. You will know how much reliance to place upon the newspaper reports of a few weeks ago, that the attorney for the State Board of Health had accepted a small bribe of money, and sundry old watches from violators of the law, when I tell you that he was offered something like \$5,000 to delay the passage of our bill which, had he done so, would have meant our sure defeat. It is simply the old tactics of crying "stop thief" to attract attention from the real criminal. It is not very creditable to the intelligence of certain medical men that they allow themselves to be so easily deceived as was done recently in the secular press of this city. In the same column were published interviews with Bland of the diploma mill, called the Independent Medical College, and two prominent teachers in two of our most reputable colleges, denouncing in unmeasured terms the present law and our State Board of Health. Thus again is illustrated the oft repeated experience that in almost every reformatory movement the extremes meet. It will no doubt be a matter of regret to these most estimable gentlemen whose high standing in the profession no one will dispute, to know that the aid and comfort they have given the enemy is being made the most of. Already their interviews have been published and scattered broad-cast over the country with a view to undermining professional confidence in the only legally constituted Board which stands for the uplift of our profession. All the advertising quacks and diploma mill representatives in Chicago could not do our cause the harm that will result from those two unfortunate interviews. These fellows, having no respectability of their own, are making the most of this splendid opportunity to cripple

the cause of medical legislation by referring to the ungarded statements of two most estimable and eminent members of our profession. It is a rare opportunity which will be industriously improved in every legislature in the Union, where by legal enactment, an attempt is made to elevate the standard of medical morals and education. I do not refer to this matter in any critical or captious spirit, but as a warning to others that these unfortunate mistakes may not occur to embarrass and handicap our efforts in the future.

The exemption of those who minister to or treat the sick by mental or "spiritual means without the use of any drug or material remedy" was a political necessity.

However much we may deride the vagaries of christian science, we must accept the fact that it is a fad which has so many adherents that it is dangerous to ignore them as a political factor. The definition of what constitutes the practice of medicine in the bill as presented by the committee, included mental as well as physical means of treatment. This was a signal for the marshalling of their forces, and on the day appointed for a hearing of our bill before the senate judiciary committee, we found ourselves confronted by a motley crew, the most formidable members of which were the christian scientists. We were advised by our friends in the legislature that it would be folly to attempt to include them in our definition, both because of their political strength and from the fact that it was very doubtful whether the courts would regard them as practitioners of medicine, or exponents of a religious rite. We knew how distasteful such an exemption would be to medical men, but we also knew the instability of the profession behind us, so we made a virtue of necessity, acceded very gracefully to their demands, and sent them home rejoicing. We believed too that a little time was all that was needed to bring the public to a realizing sense of the danger of tolerating those practices which violate common sense and common experience. Our prophecy is being rapidly fulfilled, and in the very near future these gentry will re-

ceive the attention at the hands of the legislature, which their absurd and dishonest practices so richly deserve.

In this connection it may be well to call attention to a principle of law which is commonly overlooked. Any law which attempts to deprive the individual of availing himself of the practice, rite or ceremony of another individual, no matter how absurd or irrational such procedure may be, is unconstitutional. This would seem to be a bar to all regulation whatever, but it is not. While it is the constitutional right of everyone to employ or practice any method he may elect, the person practicing such a method is held responsible under the law for any harm which may result from such treatment. This treatment may be active or passive, but in either event the practitioner of the method will be amenable under the law, and his accountability will be measured by the commonly accepted standard of practice prevailing at the time. This legal distinction is too frequently ignored by medical men in their efforts at law-making. Thus it will be seen that while a law which would attempt to make all practitioners of medicine conform to certain standards would be unconstitutional, yet the practical effect of the law is to recognize the procedures commonly accepted and practiced by medical men. Thus rational medicine is indirectly established as the legal standard, although it could not be done by a direct statutory provision. This fact is what makes a legal definition of medicine well nigh possible. Every attempt thus far made has been to include too much or too little. The definition of what constitutes the practice of medicine is the storm center in medical legislation. Since the courts must finally determine the question in any given case, no matter what the law may be, it has occurred to me that in future attempts it would simplify matters very materially to leave this section out entirely, and take all doubtful cases directly to the courts. This is not likely to result in harm to the cause of legitimate medicine, as the decisions of the higher courts have been almost uniformly in favor of rational

medicine. Indeed I believe we can accomplish more with less effort by taking this course.

The law as it now stands if properly enforced will cut off the supply of ignorant pretenders who heretofore were admitted to practice upon credentials to which they were not entitled. This is its element of strength. Its element of weakness lies in the fact that not one of those now holding a certificate can have that certificate revoked except by a process of law which, is so tedious and expensive as to make it of little avail. The committee bill provided for an annual renewal of licenses, which would not only have enabled the Board of Health to know who were practicing in the State, but would also make it possible to withhold the license of anyone engaged in disreputable methods. This clause was so violently oppose by all elements in the profession, both good and bad, that we did not press its passage. Until the better class of medical men are willing to submit to the very trifling task of registering each year, no relief will come from the horde of quacks who infest this State, and more particularly this city, except by the slow process of removals and deaths. It is one of the anomalies of medical legislation that medical men will clamor for the suppression of quackery, and at the same time refuse to give the constituted authorities the power necessary to comply with their demands. There seems to exist an unreasonable fear that if the authorities are given the necessary power they will use it arbitrarily and oppressively. The converse is true. Such boards are more likely to fall short, rather than to exceed their authority, hence there is no danger to the legitimate physician from such a provision as the one proposed.

The law as it now stands simply puts an estoppel upon the admission to our ranks of the uneducated, but fails as an aggressive measure. If it is not made more effective in this important particular its friends who have expected too much will become discouraged, and its enemies point to its failure as another evidence of the impotency of medical legislation.

There is much work yet to do before we have a good law, but no further attempts should be made to improve it until the better elements of the profession take more interest and have more enlarged views upon the subject. They must understand that a law to be effective must be practical. That to be practical it must be symmetrical. To be symmetrical it must recognize all those professional, legal and political factors which have any bearing or influence in securing its enactment. We are very much in the habit of abusing legislatures and courts for the inadequacy of our medical laws. The fault lies at our own door. The history of medical legislation presents a diversity and instability of character hardly equalled in relation to any other public interest. The reason of this is found in the fact that earlier attempts were inspired by bigotry, and later efforts were due to a failure to comprehend the subject in its entirety. This has led to misdirected effort which has created a prejudice both in and out of the profession against legislation of this character. The work has usually been left to a few men who have either assumed to speak for the profession without authority, or if they have been authorized, have been left to work out the problem unaided by the great body of the profession. This is a condition of things for which no one in particular is responsible, but so long as it exists all attempts at medical legislation must result in failure, or at least fall far short of what could be accomplished by a more united and enlightened effort. A few men, no matter how intelligent, patriotic or devoted they may be, can never work out the problem alone. Even if they should succeed in securing the enactment of a perfect law, it would still fail of its purpose for lack of professional and public sentiment to sustain and enforce it.

State aid is not a specific for educational methods which now exist, or low professional standards. It is one means, however, and a decidedly helpful one in hastening the time when higher standards will be demanded by a universal public opinion.

This goal will not be attained without an

organization. Organization of that practical kind which realizes the difficulties in the way of proper legislation and ability to push the work to a successful issue.

THE PHYSICIAN AND THE MEDICAL LAW.*

BY HAMILTON C. KIBBIE, M. D., OBLONG.

The profession of this State may be proud of the fact that Illinois has one of the most perfect medical practice acts yet adopted. The passage of this law was due to the co-operative efforts of a legislative committee appointed by the Illinois State Medical Society, of which committee Dr. J. W. Pettit was chairman, and the Illinois State Board of Health, and to a great extent the satisfactory results were due to the personal efforts of Dr. J. A. Eagan, the present efficient Secretary of our health board. They succeeded in organizing the medical men of the State, and by bringing their influence to bear upon the legislators they routed the powerful lobby organized to defeat the measure, and successfully accomplished the passage of the bill.

The act came into force July 1 of this year, and by its provisions the State Board of Health became the licensing body required to examine all applicants to practice in the State; except that in its discretion, the Board was allowed to issue certificates without examination to graduates of legally chartered medical colleges located in Illinois.

The wisdom and justice of that portion of the bill which exempted from examination graduates of medical colleges located in Illinois may well be questioned, but with the knowledge that the present Board of Health at its very first meeting waved the discretionary powers granted, and resolved that graduates of all colleges wherever situated should be subject to like examination before a license to practice would be granted, removes all objections to the bill, and gives to the profession satisfactory as-

urance that the Board of Health is in harmony with the best medical thought of the State, and honestly desires that justice shall govern, and the true intents and purposes of the act shall be faithfully carried out.

As the act is now enforced under the rulings of the Illinois State Board of Health, no discriminations are made in favor of graduates of Illinois colleges, and consequently no fault can be found with the justness and fairness of the law as it is at present administered.

After next January a full course of four years will be required of all medical colleges desirous of being recognized by the Board as in good standing, and this is a step tending to lift the standard of medicine up to the high plane which the profession occupies in England and the more advanced countries of Europe. It may therefore be hoped and expected as a result of these increased educational demands that a medical degree conferred by an American college will soon be recognized as entitled to the respect of the profession in foreign countries rather than be considered as at present an evidence of superficiality, if not directly suggestive of ignorance and charlatany.

Under the provision of the present practice act the Board of Health may withhold or revoke the certificates of those who are shown to dishonor the profession, or are in any way guilty of unprofessional conduct, but before such action can be taken the person affected is required in justice to be given a hearing before the Board. This is one of the most satisfactory provisions embraced in the law, and all members of the profession in this State should be thankful that the time has arrived when those who shame our honorable work can be legally weeded out from the ranks of reputable medical men.

There are many other provisions of the Illinois Practice Act calculated to restrain poachers upon the domain of scientific medicine, and all these provisions are worthy of being sustained by those who have at heart the advancement of the medical profession and the welfare of the people of the State.

*Read before the Aesculapian Medical Society, October 26, 1899.

Under the law the numerous medical side shows conducted by people who, honestly or otherwise, put forth claims to cure disease by christian science and other fanatical methods, are checked, hedged in and forced to abide solely by their own peculiar claims, not being allowed to employ medicine, practice surgery or advertise themselves as physicians.

Another class of fadists calling themselves osteopathic practitioners are required to confine themselves to the practice of osteopathy—whatever that may be—and they must also pass an examination in anatomy, physiology, histology, pathology and hygiene before they can be authorized to practice their peculiar calling in the State.

Under the law it has been decided that that pestiferous class calling themselves faith healers—religious fanatics who cherish fantastic notions about the nature of disease and deceive themselves with the idea that it can be juggled with prayer or influenced away—some of them probably honest, but many of them religious imposters, who work upon the sensibilities of the intellectually feeble, must limit their practice entirely to spiritual and mental means, and that any physical treatment renders the party administering it liable under the law. Already several convictions have been secured, and it is probable that these most arrant humbugs will be greatly restricted in their actions if not entirely squelched.

Possibly the most shameful and disgraceful matter affecting the profession in this State has been the horde of charlatans who, under the protection of diplomas, granted by fraudulent medical schools, have crept into our ranks and preyed upon the confiding sick, and by means of extensive advertising in the daily press, have grown rich upon the proceeds of most inhuman robbery. Chicago has heretofore been overrun by these harpies, but I am thankful that the time has come when they can no longer carry on their nefarious practices, as they are readily subject to prosecution under the medical act. The medical profession of the State owes to Dr. Egan a debt of gratitude for the efficient work he has done in cleans-

ing Chicago of these unscrupulous mercenaries, who have thrived and grown fat upon frauds practiced upon the sick and afflicted.

However, even under these most favorable circumstances, it behooves the medical profession of this State to indulge in no pipe-dreams of peace; we may expect that the same agencies which so bitterly fought the passage of the law will still be active in belittling its influence and undermining its effects, therefore as physicians we should take every means to strengthen the hands of those who uphold our cause, we should demand that the members of the Board of Health shall continue to be men of high standing in the medical profession, sympathizing in every respect with the intents and purposes of the law and energetic in carrying its provisions into full force and effect. No matter how good the law, if it is left to be enforced by incompetent men, or those who have no sympathy with its provisions, and who are careless, negligent or corrupt, it cannot fail of proving a curse rather than a blessing.

There is nothing of greater importance to the medical men of this State than an absolute certainty that our State Board of Health shall not fall into the hands of truckling politicians but shall continue to be composed of men of high professional standing and unquestioned integrity. Partisan political views should bend to this necessity, and no man—it matters not by what party nominated—should receive the support of the profession in this State for the high office of Governor, unless pledged earnestly to sustain the just demands of the medical profession and to co-operate with us in upholding our present Medical Practice Act.

The profession should recognize the State Board of Health as the highest medical authority in the State, and should in all cases render ungrudging support to its demands. By so doing we can enlighten the laity, now but little informed as to the value of the service of the Board, in reference to hygiene and the public health. Our laws relating to public health are by no means

perfect, and will admit of considerable improvement, but by carrying out the law as at present framed the necessary improvements will become evident, and such changes and modifications as are demanded will not be difficult to obtain.

Every physician should secure a perfect understanding of the laws of the State as they bear upon medical practice and public hygiene, and should consider it a duty which he owes to his profession to see that all violations of the law are reported and the violaters promptly brought to justice. In this way, and in this way only, can the full results of this most excellent law be secured.

DRAINAGE AND IRRIGATION OF THE PLEURA IN EMPYEMA. CONFLICT OF METHODS AND OPINIONS.*

BY EDMUND ANDREWS, M. D., CHICAGO.

The surgical handling of empyema still presents many disputed points. Owing to the divergent opinions of prominent authors, we have to confess with regret that the literature of this subject is full of disgraceful contradictions.

There is, however, a substantial agreement upon one main point. It is settled that with a few exceptions where simple aspiration rapidly succeeds, or the patient is improving well under natural evacuation through a bronchial fistula, empyema requires surgical drainage.

Drainage is agreed to, but disagreement arises when we inquire into the method of it. Authors diverge mainly on three questions.

1. Shall we simply incise an intercostal space and drain through the wound? (2). Shall we tube the wound and irrigate the cavity? (3). Shall we resect portions of ribs and in some cases large areas of thoracic walls, after the plans devised twenty years ago by Estlander and Schede of Germany?

There is really no ground of conflict be-

tween the methods themselves, since all of them have to be used, and at least two of them may be required in the same individual patient. The disagreement arises when men wedded to one method make use of that deceitful, but "glittering generality," expressed in the phrase, "Operate in all cases" according to their pet method.

The attractiveness of this plan is that it saves all the anxiety and brain labor necessary to enable the practitioner to diagnose the conditions and select his methods. It is also unpleasantly evident that some writers have been too negligent to inform themselves about any but the one plan, with which they happen to be familiar.

HISTORY.

The history of efficient surgical handling of the pleura for empyema does not reach far back.

About a hundred years ago Sir Astley Cooper was in his prime and was a man of immense talent and experience. He was, however, powerless in the presence of empyema. He stated, (see Samuel Cooper's Surg. Dictionary) that he never knew a patient to recover after tapping for hydrothorax. I presume this result was due to the horrible septicism at that time pervading public hospitals, and to the added fact that in his day nobody knew how to disinfect a pleural cavity, which now we so easily accomplish.

Sir Astley Cooper, however, made a step forward. He discovered in some way that the patient had a better chance of recovery if he had free drainage. Sir Astley therefore devised a silver drainage tube, having a broad flange to prevent it from slipping into the cavity, and used a cork to check the free inflow of air.

So far as records show this was the first precursor of the flanged soft rubber drainage tube devised in Chicago twenty-five years ago, and so much used ever since. Still the condition of these patients was very discouraging. Sir Astley's drainage tube went out of use. The fistulous orifices for want of tubes contracted and retained the septic pus under a pressure that kept the abscesses from contracting, and kept the pa-

*Read at the 49th Annual Meeting, Cairo, May 18, 1889.

tients continually absorbing poison from them, so the majority of them continued to die.

The belief in those days was that the injury which surgeons observed to follow, the admission of air into great pus cavities, was due to the oxygen in it and not to septic microbes, hence all were timid. They shrunk back from Sir Astley's free drainage tube plan and made their openings as small as possible.

Things went on in this way for sixty years, when Bowditch of Boston took the matter up. Having no knowledge of anti-sepsis, nor of the benefit of free, wide-open drainage, he devised an ingenious plan to tap the chest without admitting any air, and by confining the patient to bed, arranged a syphon and tube which conveyed away the pus without letting in the dreaded oxygen. This was an exploit which gave Bowditch a great reputation. However, it was cumbersome to keep the patient in bed, and was never generally adopted, but Bowditch was able to show two important things. (1). That one or two aspirations or tappings would cure many cases without open drainage. (2). That the syphon drain carefully used, cured many that resisted the simple primary tappings. Clearly the profession was coming towards the light at last.

Lister broke the yoke off our necks. He showed that almost all great abscesses, however putrid, if they were only accessible to free antiseptic irrigation, could usually be disinfected, caused to cease the production of pus and made ultimately to heal.

Our own observation showed us that chronic, infected abscesses have usually contracted orifices, and though discharging large quantities of putrid pus daily they are retaining a great reserve collection under a pressure which effectually prevents the contraction of the cavity. Make a large opening and quarts may gush out at once. If you maintain the size of the orifice, the pressure is abolished, the absorption ceases and the poisoned patient reacts toward health.

If the effect is not sufficient, irrigate the cavity daily with a saturated solution of

boric acid, and the pus will usually cease to form. The odor ceases and the patient gets well, if the cavity admits of free irrigation. It is well proven that air may be freely admitted to a suppurating pleural cavity with not the slightest harm, if the interior is wet daily with a mild antiseptic solution.

In Chicago we made this change of treatment about twenty-eight years ago. In fact it revolutionized our methods.

About twenty years ago Estlander in Germany brought out the plan of obtaining free drainage by resecting one of several ribs. The Germans of those days seem never to have seriously tried the free use of soft, large tubes, but proceeded at once from the older methods to Estlander's resection of the ribs, a method unnecessarily harsh in most cases.

I believe Estlander intended it at first only for cases of special gravity, but his followers applied it to all cases, seeming many times to be unaware that in a majority of cases American surgeons got equally good results with less harshness of procedure.

About a year after Estlander's most valuable monograph, Schede brought out an operation which he called thoracoplasty adopted to cases of special obstinacy. He cut away large portions of ribs with the intercostals and other muscles, dissected out the thick layers of cicatricial tissue and caused the whole interior to granulate anew, letting the skin and connective tissue sink into the cavity. Germany seems to have adopted these plans almost completely, but England, France and the United States are divided in opinion, giving rise to great contradictions in their literature.

Some idea of the extent of the disagreements may be obtained by the following classifications of writers and teachers

TAPPING, INCISION AND DRAINAGE.

Generally favored by—

E. Fletcher Ingals, of Chicago.

The elder Gross, of Philadelphia.

Bouney, of Boston.

Morison, of Hurtlepool, England.

Wightman, of England.

Peters, of LaPitie Hospital, Paris.

Erichsen, of London.

Andrews, of Chicago.
 Murphy, of Chicago.
 Cantly, of London.

IRRIGATION.

Employed by—

Bouney, of Boston.
 Peters, of Paris,
 Andrews, of Chicago.

Opposed by—

Paget, of London.
 McFadden, of Atlanta, Georgia, and
 others.

RESECTION OF RIBS.

Favored in all or the majority of cases by
 Estlander and nearly the whole profession
 in Germany.

A. Rey, of Algiers (trephines a rib).
 Brisson, of France
 Batten, of London.
 Senn, of Chicago.
 Fahrquhar, of New York.
 F. W. Murray, of New York.
 Bilton Pollard, of London.

Opposed to resection except in a minor-
 ity of cases—

Treves, of London.
 Bryant, of New York.
 Mears, of London.
 Wyeth, of New York.
 Murphy, of Chicago.
 Andrews, of Chicago.
 Koenig, of Germany.
 Struempel, of Germany.
 Gerhardt (does not mention it).
 Erichsen, of London.
 C. G. Comstock, of Boston.
 Cantly, of London.
 Bouney, of Boston.
 Wightman, of London.

There is a reason why the Germans have accepted the resection plan so uniformly, while the Americans and English adopt it only partially. Before Estlander's time we had advanced to drainage through the intercostal spaces, and found it a wonderful improvement and less harsh than the resection. It was also abundantly sufficient to cure most of the cases, but the Germans did not pass through this preliminary improvement. They kept on the old plan under which, according to German statement,

nearly all of the patients died. When Estlander showed them how to save most of the patients by drainage through a gap cut out of a rib, they knowing nothing about intercostal drainage, naturally applied resection in all cases. Here, however, we cure the great majority of our patients by the simple intercostal aspiration or drainage, and this is less dangerous, especially for children, than resection. In the majority of cases we need no other plan, but still there are a few peculiar and difficult empyemas, where we are glad to resort to resection. Thus our surgeons select the method to fit the case, and do not all go like a landslide down one track. Still, a few of us are to blame for taking sides and advocating this or that pet plan, which like a shining *ignis fatuus* we would follow in all cases.

ADVANTAGES AND DISADVANTAGES OF THE METHODS.

Intercostal incision is materially safer than resection in most cases, especially in children, and in cases not too chronic. Experience shows that if the wound is kept open by a large soft tube, hectic ceases, the patient becomes vigorous and generally makes a rapid and painless cure. However, it is not sufficient for every sort of case. A few having necrosis, foreign bodies, tumors, etc., require a large orifice for the insertion of fingers and instruments, and must suffer the removal of portions of ribs with irrigation, mild antiseptics or with warm sterilized water, can be used equally after incision or resection. The advantages of it are that if streptococci or other virulent and putrefactive cocci are present, they are killed and swept out by a daily warm irrigation with boric acid, and a very rapid invigoration of the patient takes place.

The disadvantage of the irrigation is this: Under imperfect management, dangerous accidents have occurred. The absorbent surface of the pleura is so great that carbolic acid and other toxic substances have produced symptoms of poisoning. Irrigating substances have caused shock, and cases of fistula from the pleura into a bronchus have had an alarming flooding of the lung with the irrigation fluid.

Our Chicago experience has been that by avoiding toxic substances and using only warm boric acid solutions, poisoning will not occur. By beginning with small and weak solutions, and increasing gradually, shock is avoided, and any bronchial fistula is discovered by the cough, without causing any dangerous flooding of the lung. After the opening of the chest wall, the pressure of the pus is abolished and the bronchial fistula usually contracts and closes up. I think with care, irrigation will have but little risk, and when streptococcus is present, it is safer to irrigate than to omit it.

USES OF RESECTION.

In certain special cases the resection of one or several ribs is necessary. There may be necrosis of the ribs, or caries of the dorsal vertebrae. There occur bullets and other foreign bodies in the thorax, or tumors and other complications, requiring the insertion of fingers and large instruments. The most frequent necessity arises from old cavities stiffened with thick layers of cicatrix, which prevent the expansion of the lung and whose starved granulations are unable to fill up the space. In these cases, ribs must be sacrificed to let the thoracic walls fall in and fill the cavity, or portions of the wall must be removed after Schede's plan. Many bad cases have thus been cured, but of the large operations, the mortality is something, and Dr. F. W. Murray, who himself advocates resection in all cases, quoted a German author who gives one hundred and fifty-six instances of large operations of which only fifty-six per cent. were finally healed without fistula.

Wightman, of London, says that of six hundred and fifty-six cases of children of all ages resected, one-sixth part died, and much more than that proportion of the younger ones.

Cantley, of London, says that of children resected under two years of age, five out of six die.

He thinks resection is much more dangerous than incision. This subject is a difficult one, which ought not to be discussed in a dogmatic and captious tone, but it seems to me in view of all the facts that in-

cision and tubing, with or without irrigation, is the proper and best method for the majority of cases, while resection should be employed only in certain instances, having peculiar conditions.

PSEUDO-MEMBRANOUS CASES.

Cases occur in which the pleura is found lined with a false membrane resembling that of diphtheria. I have found in these cases that irrigation does not immediately suppress the suppuration, but it is not necessary to open wide and scrape off the membrane mechanically. In a week or ten days it will come off in pieces and pass out through any large tube, after which the case proceeds normally. Irrigation hastens the expulsion of the pieces.

AMBULATORY TREATMENT OF FRACTURES.*

BY CHAS. D. LOCKWOOD, A. B., M. D., CHICAGO.

Ambulatory treatment of fractures of the leg was recommended by Berard as early as 1833.

Hessing was the first of modern surgeons to successfully employ this form of treatment; but of late both simple and compound fractures of the leg are being treated more and more by ambulatory appliances.

General surgeons have been slow to adopt the methods and appliances of the orthopedist, and even our most eminent operators, until very recently, have failed to recognize the great superiority of mechanical devices in the treatment of certain joint and bone affections over the radical operative measures heretofore employed.

By the ambulatory treatment of fractures is meant: any method that enables the patient to be about in an erect posture—while bony union is taking place—and that materially shortens the period of enforced recumbency.

This method is especially adopted to the following classes of cases:

1. Fractures below the knee in children.
2. Fractures of the femur in old people.

Read at the 49th Annual Meeting, Cairo, May 19, 1899.

3. All simple and uncomplicated fractures of the lower extremity in young adults.

I. Fractures of the lower limb in children. The points to be kept in mind in the successful treatment of all fractures are: (a) Thorough reduction. (b) Perfect immobilization of fragments in the most favorable position. (c) Favorable vascular conditions, and in the case of compound fractures, (d) perfect asepsis.

The last three of these conditions are difficult of attainment in children because of their intractability, restlessness and aversion to confinement in bed. All of the requirements for speedy recovery can best be met in children by the early application of an ambulatory splint.

Such an apparatus must perfectly fix the fragments and relieve the fractured portion of the limb from all weight-bearing. For fixation of the fragments we may use any of the materials commonly employed. The best are: Plaster of Paris and wood-fibre which has been recently introduced to the profession as a splint material by Tracy of Boston. I am partial to the latter as a splint material. It may be had in sheets one yard square, and can be cut to fit any part of the body. It is then immersed in hot water until flexible, when it is applied to the limb and moulded to fit. It is now firmly bandaged and the limb kept quiet until the splint dries. It will then maintain its shape and perfectly immobilize the fragments. It has the advantages of being much more quickly applied and removed than plaster of Paris, is cleanly and light, the last property being of importance where the patient is upon his feet.

Plaster of Paris is to be preferred as a splint in compound fractures, those in the neighborhood of joints and fractures with considerable shortening and muscular spasm, when the splint affords extension.

We next consider the means of support and locomotion. The weight of the body may be transferred from the affected limb to one of the following points:

- (1). The axilla by the aid of a crutch.
- (2). The tuberosity of the ischium by

means of the caliper or Thomas knee splint. (3). In fractures below the knee to the condyles of the femur and the flaring end of the tibia. This last support is not available in children owing to incomplete development of the condyles.

In the majority of cases it will be found best to employ the caliper splint together with crutches and a patten under the sound foot. This throws the injured limb completely off the ground and swings it in a cradle, which not only assists at immobilization but also protects it from external violence.

This appliance is especially adapted to children with fractures below the knee, for it renders secondary injury all but impossible. At the end of another week, in favorable cases, the splint may be removed and patient can get about upon the leg with no other support than wood-fibre splint or plaster of Paris cast from ankle to knee. In uncomplicated cases the ambulatory apparatus may be applied and patient permitted to get up within forty-eight hours. In compound fractures or those accompanied by marked swelling and shock, it will be necessary to wait from four to ten days.

Fractures above the middle third of the femur in children are not so amenable to ambulatory treatment, owing to shortening and the necessity for extension. However, a majority of these cases can be satisfactorily treated by a Thomas hip splint, to which a windlass is attached. Strong elastic webbing is buckled to the windlass and the other end fastened by adhesive strips to the thigh. In this way several pounds traction can be made.

II. Fractures of the femur in old people.

The well known dangers of hypostatic pneumonia, non-union and permanent disability in the aged when confined to bed with a fracture, make it extremely desirable that such patients be treated otherwise than by confinement to bed with Buck's extension.

Whenever possible these patients should be placed in a Thomas hip splint fitted over a plaster of Paris spica, extending from the middle of the leg to the crest of the ilium.

An assistant makes several pounds traction while the cast is being applied, and this should be maintained until the plaster sets. If pain and muscular spasm are marked, anesthesia must be resorted to to effect thorough reduction.

Within forty-eight hours after application of the splint the patient must be induced to walk about a little with crutches and an elevated shoe or patten under the sound limb. The patient will complain bitterly at first and think it impossible for them to get about, but confidence and patience on the part of the surgeon will succeed in getting them to walk, and with astonishing rapidity they will adjust themselves to the apparatus.

In from six to eight weeks the apparatus is removed, the limb examined and the plaster of Paris, or hip splint alone, reapplied. I have employed this treatment in two fractures of the femur in old ladies, with very gratifying results.

The only contraindications to the ambulant treatment in these cases are severe shock and profound weakness.

III. All simple and uncomplicated fractures of the lower extremity in young adults.

The apparatus and methods used in the treatment of leg or thigh fractures in the adult, are the same as already detailed in the discussion of the same fractures in children; the only difference being that heavier material must be used for the Thomas knee and hip splints.

I wish especially, under this head, to call attention to the treatment as applied to fractures of the patella.

Albers² made a decided innovation in the treatment of fractured patella, and in 1894 reported a case treated in an ambulatory way that was wholly different from the accepted methods of dealing with this condition.

His method consisted in the early application of a plaster of Paris dressing to the leg, moulded to snugly fit the fractured patella, the fragments of which had been previously approximated. He left a trap door over the patella, and incorporated in the

cast an iron bar which arched over the bone.

In this dressing the patient was allowed to get upon his feet immediately.

Without knowledge of Albers' case I treated two cases of fractured patella by the ambulatory method, with a fair result as to union and function of the knee joint.

Mr. K., laborer, aged 40, weight 250 pounds, in running for a street car struck his knee against an iron water plug. On regaining his balance, he felt great pain in the left knee and had lost use of the leg. On examination a transverse fracture of the patella was discovered. The bone was in two fragments, with a separation of at least one inch. There was great edema of the knee joint with ecchymosis. A posterior splint with projecting pegs above and below the joint was firmly and evenly bandaged with a flannel roller by figure of eight turns about the fragments. These could not be closely approximated. The leg was elevated and an ice bag applied for forty-eight hours, when the swelling had largely disappeared. Primary dressing was removed and a permanent one applied in the following manner: A broad firmly rolled muslin bandage was laid above the upper fragment transversely, another below the lower fragment. An assistant maintained hyper-extension of the leg and compressed the two muslin rollers, thus almost approximating the fragments. The rollers lying transversely were securely bandaged in their place by a heavy flannel bandage in figure eight form. Finally the whole was encased in plaster of Paris in figure of eight form: over the knee where the cast was thickest, and while still pliable, moulded to the contour of the underlying bandages. Hyper-extension was maintained until plaster was firm. The following day the patient was permitted to get around on crutches. At the end of three weeks a new cast was applied, and a cane substituted for crutches. At the end of eight weeks both cast and bandages were removed. Firm bony union had resulted. Active and passive motion restored a fair amount of knee action.

A second case treated in a similar manner gave equally good results.

The treatment is adapted only to simple fractures with no fringe of periosteum or aponeurosis lying between the fragments. The open method suggested by Albers may be used in the treatment of compound patellar fractures. The dangers of sepsis and subsequent ankylosis following operative treatment are so great that it is justifiable only in well selected cases, under the most favorable conditions, and in skilled hands.

Dangers attendant upon ambulatory treatment:

Scudder³ and others have dwelt at some length upon the dangers of this form of treatment, and have offered the criticism that it is unsurgical.

It cannot be said, with fairness, that any method of treatment is unsurgical, or unscientific, if it accomplishes results, even though it runs counter to preconceived principals and "so-called" surgical laws.

Theoretically the dangers are:

1. Fat embolism.
2. Pressure sores.
3. Muscular contractions.

The first of these must be admitted, but that it is more likely to occur than when the patient is at rest has not been proven; on the contrary, out of over 500 cases collected from the literature of the subject I find no such complication reported.

As a matter of fact those fractures accompanied by severe shock, with extensive injury to soft parts and comminution of bone, where embolism and thrombosis are most apt to occur, are the ones least adapted to ambulatory treatment.

As for the second objection, the surgeon is ALWAYS culpable if pressure sores result from the use of any orthopaedic appliance.

Contractures cannot only be avoided but completely overcome, when they have already taken place, by careful attention to the details of the after-treatment. Massage as practiced by French surgeons in conjunction with ambulatory methods will reduce muscular contractures and stiffness following fractures to the minimum.

A careful study of over 500 cases reported by good surgeons as treated in an ambulatory way, convinces me of its safety and efficiency.

Fiske⁴ makes a very careful and instructive report upon 226 cases treated at The Roosevelt Hospital.

Of this number 159 or 75% were fitted with an ambulatory splint within twenty-four hours. The average length of treatment was twenty-eight to thirty-five days.

There were no serious complications ascribable to the method of treatment, and the functional results were equally as good as when patients were kept at rest for longer periods.

Bardleben⁵ reported 116 cases in 1894 which he had treated with ambulatory splints. To this number he adds 65 cases in 1895.

Albers warmly recommended the treatment at the twenty-third German Congress of Surgery in 1894, and reported 78 cases. Of this number 56 were of the leg, 5 of the patella, 16 of the thigh, and 1 of the leg and thigh.

Martin⁶ considers it the ideal treatment for fractures in military practice, and in 1895 reported 20 cases.

Warbasse⁷ in a careful report upon 450 cases of fracture, mentions 30 in which ambulatory treatment was employed with great satisfaction. In this report he also makes the very interesting and significant statement that radiograph pictures show less overriding of fragments when patient is standing erect in an ambulatory apparatus than when in a horizontal position.

SUMMARY.

1. Orthopaedic measures and appliances should be more widely used in the treatment of all bone diseases and fractures.

2. All fractures of the lower limb are adapted at some period of their existence to ambulatory treatment, the time depending upon severity, nature, and site of fracture.

3. This form of treatment does not materially hasten bony union, but it makes it more often attainable.

4. The dangers attending ambulatory

treatment are largely theoretical, and may be practically disregarded.

5. The early application of ambulatory apparatus, together with early massage, as practiced by the French, is the ideal treatment for fractures.

REFERENCES.

1. Scientific Splinting.—Boston Journal of M. & S., 1897.
2. Verhand der Deutschen Gesellschaft für Chirurgie XXIII. Cong. 1894.
3. Amb. Treat. of Frac.—Boston Journal of M. & S., Feb. 3, 1898.
4. Amb. Treat. of Fractures of Leg.—Med. News, Feb. 13, 1897.
5. Same as 2nd.
6. Amb. Treat. of Fract.—Proc. Ass'n Mil. Surgeons of U. S. Vol. VII. pg. 521.
7. Annals of Surg.—Vol. XXVII. Rep. of 450 Fractures at M. E. Hosp., Brooklyn, N. Y.

HEREDITY.*

BY JOHN ROSS, M. D., PONTIAC.

"Live folks are only dead folks warmed over," says Oliver Wendell Holmes. If the subject of heredity is thoroughly studied, it will reveal striking illustrations of this terse sentence in races, nations and families. The biological law by which everything endowed with life tends to repeat itself in its descendents is called heredity. Ideal heredity would be the reproduction of like by like, the qualities of both parents blending so that the offspring would be a product having qualities equally taken from each. In real life this theory is not followed with such mathematical precision, but that it is followed in a marked degree can be seen on every hand. Parental peculiarities are the most prominent characteristic of inheritance. We find the external structure of the human body transmitted in limbs, trunk, head, hair, countenance, expression and complexion. The internal structure is transmitted in the bones, muscles, circulation, digestion and brain. In fact, the minute and gross anatomical structure is so definitely transmitted that Galton thirty years ago gave a formula for determining the stature of children from the

stature of their parents, and the average stature of the race. Not only do general characters of the anatomy but peculiarities of structure frequently show in the descendents. Six fingers, hare-lip, club-foot, prickly skin, hairy body and strabismus are frequently transmitted through many generations. Edward Lambert, whose body was covered with scales that rattled when he walked, transmitted the peculiar anomaly for six generations. James Leonard never had a tooth, and his four children have none. These cases demonstrate the tenacity of peculiar inheritance. Although peculiar anatomical structure may be inherited, yet loss of parts of the human anatomy are never transmitted. The rites of circumcision must be performed to-day as regularly as they were thousands of years ago. Infant girls are as perfectly constructed to-day as they were before the christian era, while few mothers ever lay claim to a perfect anatomical structure. Children do not inherit peg-legs, but wooden heads run through many families.

Although the subject of heredity has been studied for years, and discussions of its various aspects have been found in the ancient writings of Greece and Rome, yet only in the last decade have the causes or mechanism of heredity been studied. It is now definitely known that all hereditary transmissions must take place through the primary egg or germ-cell, and that all other cells of the human anatomy come from this germ-cell by cell division. Bisexual propagation has shown that two cells uniting to form the impregnated egg each have an equal amount of chromation from each of the parent cells.

As well as anatomical structure, so is physiological traits transmitted. Some families enjoy longevity. Fecundity and the tendency to bear twins and triplets run in some families and not in others. Left handedness, nearsightedness and albinism are alike transmitted. Loquacity is evidently hereditary. Genius and mediocrity are no doubt transmitted. Capacity and incapacity for the highest intellectual training and pursuits are born in men. Vagabonds

*Read before the North Central Illinois Medical Association, Mendota, Dec. 6, 1899.

go on in beggary, dirt and drunkenness and beget children doomed by their birth to idiocy, profligacy and crime. The gambler, thief and murderer frequently is the heir of the gambler, thief and murderer of the last century. The records of our prisoners and reformatories prove this statement.

National character is undoubtedly hereditary. The French of to-day are the Gauls of Julius Cæsar; the German of Tacitus is the German of to-day. The Jew remains the same as do the natives of China, Japan, India and the East.

The phase of heredity most interesting to a body of medical men, is the heredity of disease. We shall maintain that no disease is directly inherited from the parents by the offspring. Two theories have been advanced for the inheritance of diseases. The first, that of microbic infection; the second, that of transmission of anatomical structure which favors the development of the disease. If our theory of infection by germs be true, any microbes which invade the egg-cell or the embryo are as much foreign substances as if they invaded the adult organism, and they are simply sources of infection from one person to another. If according to the second theory, inherited diseases are the result of the transmission of peculiar anatomical structure which favors the development of these diseases, we are still dealing, not with the hereditary transmission of the disease, but with the inherited physical constitution which favors the development of the disease. According to this latter theory, the inheritance is complete whether the disease develops or not.

Few physicians recognize the importance of the transmission of diseases, and the importance of the family history in the diagnosis of many obscure cases. The physician should also recognize that the environment of the mother, the starving, pressure, temperature and direct injury to the germ-cells, and the resulting embryo, will have its influence on the child as well as the same influence directed to the living child.

We give mothers the praise when we see great men and women, but when we see in-

ferior men and women, no one presumes to question the mothers who produced them. No one then ever suggests that the mothers of men could possibly be improved, and yet there is where the responsibility of inferiority as well as superiority really lies. To meet gross national ignorance and the elevation of humanity, we demand a better system of education. Why not demand a better motherhood? A law should be enacted in Illinois for the regulation of marriages. The proper solution of the insane and pauper problems, which now confront the people of this State, is to prevent such wards from coming into the world. The law might also embrace habitual criminals with advantage to the safety of the commonwealth.

TUBERCULOSIS.*

BY DR. C. A. PALMER, PRINCETON.

Called attention to the large death rate attributed to tuberculosis, with the remark that the generally accepted rate was not high enough on account of there being many deaths due to undiagnosed forms of the disease. That probably the disease was arrested and a symptomatic cure made in many cases by very diverse methods, but that the real way to fight the disease was by preventive methods. The necessity of early diagnosis was commented on and the tuberculin test advocated. The disease being acknowledged as a contagious one, the control of the avenues of infection was urged. Isolation of patients afflicted and care of excreta containing germs was recommended.

The difficulties of controlling this in the earlier stages, when the patient was able to be around and still attending to his business, was discussed. The nursing babe should not be allowed the breast of the tuberculosis mother or the milk from an infected cow. The testing of cows by tuberculin was advocated and the claim made that the tubercle bacillus as found in the human and the bovine family was one and

*Abstract of paper read before the North Central Illinois Medical Association, Mendota, Dec. 6, 1899.

the same, only modified by the difference of culture medium—or the infected animal.

Reported that the Board of Health of the city of Princeton had caused an ordinance to be passed providing for the inspection of all cows furnishing milk for sale or use in the city. That the State Veterinarian had tested all the cows for tuberculosis, and all found suffering from the disease had been destroyed, so that now all milk used was from non-tubercular cows.

The paper closed with congratulations as to the results attained by preventive measures, and expressed a belief that from this source and also by advanced therapeutics we would soon see a lessening number of deaths from this disease.

THE HISTORY OF AN OUTBREAK OF RABIES, WITH CLINICAL REPORT OF A CASE IN THE HUMAN SUBJECT.*

BY JAMES S. MASON, M. D., RANTOUL.

One day in February, 1899, a stray dog came into the town of Penfield. Aside from its disposition to fight with every dog it met, its behavior did not attract attention. It was followed by crowds of boys to witness attacks made on other dogs, and gained a notoriety as a fighter. On the second or third day it was seen about the village, it had encounters with a majority of the dogs in town and was usually the victor. The report came to town of his also sallying into the country for more foes to encounter, and of his achieving victory there. During his two or three days about town, he was observed to make his headquarters at a barn, sleeping on the hay in the feed-room. He was driven away at different times when found there. A horse stood in a stall within reach of the hay in the feed-room. The next morning early, after the day he fought his victories, the "stray dog" was found by a citizen of the town, stretched across his doorway, frothing at the mouth, very hag-

gard in appearance and unable to arise, but disposed to dispute with the owner of the house his right to the doorway. The owner of the house procured an ax and killed the dog, and said he believed it to be mad. About three weeks later a number of dogs in town took sick, did not eat well, one or two acted strangely and were killed by their owners. Several drooped, got so they could not get up, and finally died. It was reported and generally accepted by the people of the town at this time that the dogs had all been treated to poison. But no one knew this to be a fact. It was noted at the same time that these dogs had all been attacked by the original stray dog. In two or three cases there were noted symptoms on giving the animals drink. One sprang off the floor as it began to drink, frightening those about it. Another seemed to show desire to drink but refused it on effort. But the symptom of "hydrophobia" was practically lacking in every case—no convulsions, no snapping, or frothing at the mouth, nor the disposition to roam about, occurred to my knowledge. Though a number were kept in enclosures which would have to be considered in this connection as preventing the development of the latter symptom. As the dogs died without the symptom hydrophobia manifesting itself, the popular mind was practically a unit that the dogs had simply been treated to poison. Late in April, the horse that was kept in the stall where the dog had tried to make his headquarters, took sick, manifesting peculiar nervous symptoms. After about forty-eight hours sickness it suddenly became mad, ran wildly down one alley and then up another, attacking cows and horses to the number of half a dozen. It finally attacked a team at a hitching post and got one of the horses down, while the other broke loose and ran toward home, the mad horse following, the picture of frenzy. After pursuing the farmer's horse for forty rods, snapping at teams as they passed, it suddenly dropped dead. At this time a good many were inclined to believe that the horse had rabies, and that the "original dog" had been mad.

*Read before the Champaign County Medical Society, Dec. 14, 1899.

Assistant State Veterinarian L. C. Tiffany was sent for and pronounced it rabies, in all probability, but had to rely on the history for his diagnosis as he did not see any of the animals when they were affected. As the weeks passed by, all these animals bitten by the horse got well and remained well. Early in the summer reports came into town that farmers had seen dogs acting strangely, and in some instances they were killed as mad dogs. I hope this full description may prove of interest in illustrating how slow the popular mind is convinced unless the truth is in the form of their preconceived notions of a thing. As the summer and fall wore on and no one saw any hydrophobia, there were many doubters as to whether there had really been rabies in our midst. This in spite of the statements of the Assistant State Veterinarian and our local veterinarian, and my own conclusions in the matter, which I took care to make plain. There is a sad sequel to this history, which has destroyed skepticism so far as I can learn. In the meantime, however, all the dogs in town, save one pet and a pup were killed or died, and those suspected in the country were killed or kept in seclusion.

On the 10th of November, 1899, McK. M—, a child of four years, residing in Penfield, was bitten in the face by a strange dog.

The child was playing with another child of the same age back of a store when bitten. They were too small and too much frightened to tell much of their encounter. However, it seemed to sum up clearly that the child was assailed and bitten by the strange dog which in all probability was guarding a wagon box and regarded the children as intruders. The injuries inflicted by the dog were severe. Under the border of the right jaw was a deep laceration one and one-quarter inch in length, and there were no fewer than six other wounds of the face and scalp, in the main simple tooth punctures. The wounds were treated thoroughly to strong antiseptics, and strict surgical measures adopted. The wounds healed as

by first intention, and the child recovered rapidly from the effects of the bite. About ten days after this occurred, the child accompanied the mother out of town on a two weeks' visit. On her return home on the 25th day after the bite, the mother reported that the child had had an attack of diarrhoea while gone, and had not been quite well at any time during the visit. She reported that on the 23d day after the bite he had been sick, but on the next day was better. On the 25th day, the day he returned home, in the afternoon she noticed he acted nervous and did not look natural. The father said his eyes had a "glassy look." On the 26th day, about 1 o'clock P. M., the child was brought to my office. His appearance was that of a very nervous child. He looked anxious, seemed afraid, kept close to his mother. His eyes attracted my attention, they had a glossy appearance, pupils were mildly dilated. His mother said he had had a nervous night before, crying out with fear, and said something was after him. He had no fever at this time, but a rapid pulse rate was noticed. I gave mild chlorides, followed by tonics and nerve sedative, and told them to report. About 4 o'clock in the morning of the next day I was called, the father saying he was certain his boy had hydrophobia. I reached him in a few minutes. He was on his mother's lap crying out with terror, as often as every minute. His cry was the dogs would bite him. "Watch them," "There that one bit me," etc., etc. The assurance of the parents and myself combined only quieted him momentarily. His expression was that of terror, intense fear, eyes widely open, pupils dilated. An expression frightful and not to be forgotten. Examination was hardly to be attempted, but he seemed to have a little rise in temperature. His pulse was in the neighborhood of 150. He answered "yes" to the question, "Does your head ache?" "Where?" "In my chin." A few days previous to this he had cried with pain in the cicatrix on jaw and chin, and had said at different times in the past seventy-two hours that his chin and jaw hurt. The scars showed no tendency to

reinflame, and were in a perfect condition. I could not detect enlargement of either the submental or submaxillary glands. Potassium bromide and chloral had to be assisted by small doses of morphine in order to get any relief from his terror. By 6 A. M. he was somewhat more quiet, and by sitting by his side and assuring him that we would keep the dogs away from him, he would drop into a doze which would last two to four minutes, when he would utter his cry of terror, saying the dogs were biting him. He seemed to see them all about. They got under the bed cover and attacked him, and the climax of his hallucination was reached when a dog, as he stated it, went into him and choked him. He complained constantly about it. "He could not drink for it, etc., etc." He begged us, one on each side of the bed, to watch the dogs away. Fever seemed to run up at 6 to 8 A. M. Pulse very rapid. Noises would startle him, and we expected convulsions at any time to ensue. I administered medicine from spoon. He swallowed with effort, but there was not the convulsions I feared. I gave water from a tin cup. He attempted to swallow, but spurted it from his mouth. At 8 A. M. he became more restless, and we gave him more chloral and bromide. He then seemed better for a little while, and took a little milk and cracker. He would call for drink, but take a spoonful or two and then refuse more. At 10 o'clock he was more restless, all symptoms much the same. I had to be absent for a time, but got the symptoms from parents. At 11 o'clock quieter, face staring with wide open eyes and dilated pupils. Pulse could not be felt. Heart sounds very rapid and weak, with no satisfactory count. Paralytic symptoms developing—a noise would cause a shudder to run from head to feet—but voluntary movements were now suspended. Hypodermics of digitaline and strychnine had no effect on heart, which was failing rapidly. Muscles of respiration began to paralyze, respiration grew gradually more shallow. He died a few minutes after 12 o'clock, twenty-seven days after being bitten.

DIRECT MASSAGE IN THE TREATMENT OF GLAUCOMA.*

BY J. A. PRATT, M. D., AURORA.

In taking up the treatment of certain forms of glaucoma by massage, I hardly think it necessary to go into discussion as to the cause of glaucoma.

The treatment would only be applicable in cases in which the cause of the glaucoma is an inflammatory deposit, acute congestion, or chronic passive congestion of the ciliary body, causing a closure of the filtration-angle. The results following operation in these cases are not so flattering that we can abandon other methods. Operations can be performed at short notice, so that with careful watching there is little danger to the affected eye. Patients frequently come to us who dread an operation, or are not far enough advanced in the disease but that treatment can be first tried.

During the winter of 1897-98, while doing a little special work in glaucoma, it occurred to me to use direct massage to the corneo-scleral junction, hoping thereby to cause absorption of the inflammatory deposits and relieve the passive congestion present, which we know are the causes of certain forms of primary glaucoma. I immediately endeavored to ascertain what had previously been written in regard to the treatment, but could find no reference to it, and concluded that it had been tried and found wanting. Accidently, a few days ago, a reprint of an article on the "study of muscae," by Dr. Geo. M. Gould, written in 1895, fell into my hands, and I found therein reference to massage in the treatment of glaucoma. Later I received a reprint from Dr. S. O. Richey, Washington, D. C., entitled, "Taxis in Increased Intra-ocular Tension," but, in this as well as in the cases treated by Dr. Gould, the massage was performed through the lids, and by the patient. This method was considered, but the direct method was preferred, as the massage can be made directly and limited to the

*Read by title at the Cairo meeting, 1899.

complete corneo-scleral junction, being a treatment that can be better performed by a physician.

While I have had a number of cases where the increased tension has been relieved, the patients have not continued the treatment.

The following is a report of my first case treated by direct massage, which has continued well for over a year, although there still continues a slight contraction of the superior and nasal field:

On April 25, 1898, Mr. T., a colored man, consulted me in regard to his eyes, saying he had become blind in one eye, while in the other the sight was becoming poor. He had been treated but with no benefit. Examination disclosed a typical case of glaucoma. The left eye was blind and stony hard. In the right the tension was about +1, with vision of 20/40, and at times slight neuralgic pains. The right eye had been ailing for two months. I advised an operation, but the patient objected. Treatment by massage was suggested and accepted.

The iris was thoroughly contracted with eserine; a 4% solution of cocaine was instilled; and then, with the back of a hard rubber cataract-scoop, the corneo-scleral junction was gently massaged with a firm even stroke, from ten to twenty strokes being made over each place.

The pressure should be regulated in all cases. It is best to start out with a light stroke, and gradually increase the pressure as the treatments progress. It is best not to do too much at the first sitting, but to be governed by the behavior of the eye. After instilling a few drops of 1% solution of eserine and prescribing eserine, gr. j. to f. oz. j, t. i. d., the man was told to return on the third day. The treatment was now repeated and again on the second day following. At the end of the third treatment, the tension was normal, vision was normal and all discomfort was gone. He was told to return in three days, but he remained away ten days. During this time the eserine was continued and hot applications were made, but on the patient's return all the old symp-

toms were present. This experience demonstrated that the benefit received was not due to the eserine but to the massage. The treatments were resumed, giving one treatment every day. In a few days the eye was again normal, and the time between the treatments was increased until frequently he received only two per month.

At present, sight is normal, and the glaucomatic symptoms have all disappeared. The blind eye was treated as well, with a return of the normal tension, but no improvement in the sight. Whether the result is a cure remains to be seen, but it is so far exceedingly flattering.

In recommending the direct massage treatment in glaucoma, I would advise the continuation of eserine and the application of hot fomentations twice a day, with particular attention to the general health.

Massage should be repeated once a day at first. If the eye reacts unfavorably, it lays with the judgment of the physician when to continue. The eye should be thoroughly washed before and after the treatment with a saturated solution of boric acid.

ERYTHROMELALGIA, OR S. WEIR MITCHELL'S DISEASE.*

BY W. J. EDDY, M. D., SHELBYVILLE.

In bringing this subject before you to-day, I do not expect to give a scientific description of the disease but to report a case of this very painful, unyielding trouble. A typical case of this disease once seen will never be forgotten. There is excruciating pain in some of the extremities, with a little swelling, increased heat, and great redness and tenderness.

To Dr. S. Weir Mitchell, of Philadelphia, belongs the credit of first giving it a place in medical nomenclature. He described it first in 1872 and again in 1878, at which time, at the suggestion of Prof. Ashhurst, he gave it its present name, Erythromelalgia, signifying red, painful extremity. The disease is rare—only some

*Read by title at the Cairo Meeting, May 18, 1899.

twenty-eight or thirty cases having been recorded. Since Dr. Mitchell's first description of the disease, he has reported a few other cases, and German and French physicians have also reported a few cases, and all agree that the trouble is unyielding to treatment. The disease seems to have a predilection for the feet—at least the feet are most often affected; but in some cases the hands are also involved. Sometimes only one foot will be troubled. It generally starts in one foot, and after years may extend to the other or to the hands. As yet the disease is only known by its symptoms, the most prominent of which are the pain, and redness of the extremities. It is most often seen in men past middle life, but may affect the opposite sex. Thus far there has been no assignable cause to any case that has been studied. And its pathology is no better understood. One writer calls it neuritis, another a perineuritis of the nerve-endings, and another thinks the disease originates in the cord from some disturbance of nutrition, or from an irritation. From what I have observed in the case that I will report, I think the cause is high up in the cord or in the brain itself. My reason for thinking it not a neuritis or perineuritis is the constant changing of the painful points, which are in one part of the extremity this week or month, and in another part next week or month, and affecting the other extremities later.

The disease it is most liable to be mistaken for is Raynaud's Disease or Local Asphyxia. In this four-fifths of the cases occur in females; while in erythromelalgia, out of twenty-seven reported cases only two were females. Raynaud's disease begins with an ischæmia, while in the other little or no difference of color is seen until the foot hangs down in the upright position, when it becomes a rose red. In Raynaud's disease, the affected parts become bloodless and white. In certain cases there is deep, dusky congestion of the cyanosed part, with or without gangrene. In erythromelalgia, the arteries throb, and the color becomes dusky-red and violaceous when the foot is down, but assumes a na-

tural tint on being elevated. In Raynaud's disease pain may be absent or acute, and comes and goes and has no relation to position, and may or may not precede the local asphyxia. In erythromelalgia pain usually present is worse when the part hangs down or is pressed upon. In bad cases the pain is present all the time more or less. The pain precedes the redness. In Raynaud's disease there is analgesia and anesthesia. In erythromelalgia, sensation of all kinds is preserved and generally exaggerated, and hyperalgesia. In Raynaud's disease temperature is much lowered, and unaltered by position; gangrene, local and limited, and likely to be symmetrical.

In erythromelalgia temperature above normal, and in some cases dependency of the part causes an increase of the heat; in others a decrease is observed; no gangrene; symmetrical.

This differential diagnosis is taken partly from Dr. Mitchell's work on the subject.

The prognosis of the disease is very unfavorable. While it does not seem to have a tendency to kill, yet it makes life miserable, and death looks pleasant as a relief from the terrible suffering.

Dr. Mitchell notes it as a therapeutic failure. He has tried all methods of treatment, and in some there seems to be a partial success for a time. He has even resorted to resection of the nerves and amputation; but the result has been the same. He wrote me that the cases which he had under observation for twenty years remained about the same. At times there would be seeming relief, but only for a short duration. Thus the cases go on until some intercurrent malady relieves the patient of his terrible suffering.

To show more clearly the character and course of this disease, I will report a case that has been under my direct observation and treatment, so far as treatment goes, for the past eleven years:

Dr. C., aged 66 years, a general practitioner, of good family history—no hereditary disease that can be traced. Had one brother die of phthisis at the age of 50 years, from exposure. He has never had

any sickness except malarial fever when a boy, due to the new country in which he was living. Was robust and strong, and worked hard during early life. Graduated from Ann Arbor in '62, and immediately took a position as first assistant surgeon in the army. Spent some time in Libby prison, received an injury to his back that laid him up for some days, afterwards gave him some trouble but not enough to lay him up. A man of good habits, a total abstainer, has had no venereal or infectious diseases, in fact no sickness of any kind until the last eleven years. The only thing of a rheumatic character was a little thickening of the joint of one finger. His temperament would be called that of a *nervo-sanguine*

About eleven years ago he began to have spells of vertigo that would last from a few minutes to an hour or more, and often double vision with it, followed by a nervous trembling of the hands if he attempted to do anything that required concentration of mind, such as writing or any particular work. The spells of vertigo and other symptoms that followed it would come and go without any particular cause, sometimes two or three times a day, and then be absent several days or weeks, and then return. After this condition had existed for a year or more, the nervousness in the hands became more marked, and while there was no trembling while the hands were not in use, as in paralysis agitans, yet on attempting to hold anything still or to write, they would tremble violently. But yet he could write and use the hands some, if no one was observing him or he was left to do it when there was no attention called to it; but the moment the mind became concentrated upon the performance of any task with the hands, the trembling would begin, and that condition remains, only much aggravated.

About two years after the first attacks of vertigo, there came on at times paroxysms of sharp, lancinating pain in the ball of the right foot; this would be very severe for a few minutes and then pass off. It might return several times a day, or be absent for several days or even weeks. While the pain

lasted, and for a short time after, the spot was very tender and swollen a little; then later it began to take on a red or mottled appearance. This condition would come and go, lasting for several weeks or months, and then disappear almost entirely for several weeks or months, and then return.

With each successive relapse, the periods of cessation became shorter and the periods of duration longer. This condition continued for about six years, or until about two and one-half years ago, since which time it has been one continuous attack; but the seat of acute pain changes frequently. Sometimes it will be in the ball of the big toe, sometimes in the ball of the foot, then on the outside of the foot along the little toe, and the side of the foot extending half the length, sometimes in the middle of the foot on top. There seems to be a little swelling during the attack, and marked reddening of the whole foot, extending above the ankle. At present he suffers continually with frequent paroxysms of almost unbearable pain.

On putting the foot to the floor there is deep flushing, with swollen, tortuous veins, and an increase of heat and pain. On elevating it again, the flushing and swelling disappear gradually, and the pain is very much diminished in character but not entirely relieved. At times blebs form, as if gangrene were commencing; but in the course of a few weeks they pass off and leave no trace of their existence.

The pearly white, asphyxiated spots that are seen in Raynaud's disease never appear. At times the pain extends along the sciatic nerve up to the hip; but that is not constant.

The foot is warm and seemingly well nourished. About a year ago the trouble began in the other foot as it did in the right; and now at times he suffers as much with the left foot as he does with the right. And in the past few months the symptoms have appeared in the hands and fingers. There seems to be a steady progression.

He has been examined and treated by a number of the best physicians of the West. Dr. Henry H. Mudd, of St. Louis, thought

the trouble an angioma; Dr. Lanphier, of St. Louis, thought it to be senile gangrene or Raynaud's disease; Dr. Fenger, of Chicago, thought the trouble came from atheroma of the arteries.

It was called rheumatism, gout, atheroma, angioma, Raynaud's disease and senile gangrene; and a great many did not know what to call it. To Dr. Quine, of Chicago, belongs the credit of first recognizing the true condition. Though he said he had never met a case in practice, he thought it better answered Mitchell's description of erythromelalgia, and referred us to him; and he confirmed it.

All measures that have been tried thus far have failed. Resection and amputation were thought strongly of until the disease began to appear in other parts, showing that it evidently had its origin far removed from the extremities. In watching the case closely, noting the peculiar recurrence of the paroxysms, noting also the peculiar attacks of vertigo, with double vision and disturbance of the nerves of the hand in the beginning, I can but think that there is a direct relation between them. The vertigo and the allied symptoms were to my mind the starting point, and as the irritation of the nerve centres that produced that condition became more intense, it made its effect felt first in the centres of sensation, and second on the vaso-motor centres. The migratory nature of the seat of pain shows that the irritation does not act on the same centres with the same force at all times.

The heart, kidneys and bladder have been examined frequently, without finding anything of a diseased character present.

Now if some gentleman who has had experience in a similar case can direct us, so that we can at least be able to relieve the suffering without the continued use of opiates and different anodynes, he will gain the everlasting gratitude of one brother practitioner. We have tried almost everything in the line of drugs, electrical appliances, mineral springs and mud baths, but all with the same result. Even osteopathy had its turn. It is a therapeutic failure.

MASTITIS IN PUERPERAL WOMEN.*

BY THEODORE THOMPSON, M. D., SHELBYVILLE.

Gentlemen: This subject suggested itself to us, not because of its rare occurrence, nor because of its fatality, but because it is a condition which the general practitioner is called upon many times to treat, and in which as many times the patient suffers the most excruciating pain; a disease which in many cases will gradually subside without treatment, and again, if left to its own resources, may cause a condition which, if not met with energetic and even radical treatment, may cause death.

We will follow the course generally pursued, by dividing the different kinds of mastitis as they appear according to their anatomical relations; that is, first, an inflammation of the subcutaneous areolar tissue, second, an inflammation of the submammary connective tissue, and third, an inflammation of the parenchyma of the gland, and it may be well to remark here that we seldom have a severe inflammation of the subcutaneous areolar tissue without one of the parenchyma, and vice versa.

I shall first take up the subcutaneous areolar inflammation. This is noticed after the second day of confinement and may occur at any time during lactation; it may be caused by a multiplicity of causes. Infection takes place from excoriations of the nipple and lead to the deeper tissue, or a bruise upon the breast from any cause, or more frequently on account of an additional hyperaemia caused at the time the milk is commencing to be secreted, causing overdue distension of the breast, or the patient takes cold and causes a hyperaemia, which terminates in inflammation.

At first there is a tenderness when the child nurses, then the hyperaemia causes redness and the pain becomes more and more intense; there may or may not be a chill, and the temperature is generally elevated from one to three degrees; the

*Read before the District Medical Society, of Central Illinois, Oct. 31, 1899.

gland is swollen and perhaps oedematous with anorexia and a feeling of lassitude; these symptoms all gradually subside alone or under treatment, or go on to abscess formation and perhaps to parenchymatous mastitis.

In regard to inflammation of the submammary connective tissue, according to Winckle, it probably almost always follows or is secondary to suppurative inflammation of the glandular structure and the pus, not being evacuated, burrows beneath the thick connective tissue at the base of the organ, forming a sack or bed upon which the gland rests and can be moved about. This is of rare occurrence.

As the parenchymatous mastitis or inflammation of the parenchyma of the gland, it may develop any time after confinement, generally during the first four weeks. In considering the etiology, we have many different causes, a few of which we shall mention. According to some authorities primipara are particularly predisposed to mastitis. This is probably due to the tension which is more pronounced in the breast of primipara than a multipara. The cause is similar or the same as in the superficial inflammation, i. e. by infections through abrasions, fissures or ulcerations of the nipple, the lymph passages transporting the germs to other parts of the gland. According to Billroth and Ehrlich, erysipelas may cause mastitis with abscess formation the cocci invading the mamma. We have not met such a case. Legry claims that mastitis may arise from suckling children having purulent conjunctivitis.

Or we have following a suppurative inflammation of the uterus or appendages a pyaemic condition, causing metastatic inflammation of the mamma with abscess formation; and again, a theory is sometimes advanced that germs find their way through nipple into the lactiferous ducts, cause decomposition of the milk, from which a mastitis may be produced. Parenchymatous mastitis is many times preceded by a superficial inflammation of the areola, which extends deeper into the paren-

chyma of the gland; but so much for the etiology.

In taking up the symptoms and course of this disease, we first notice the cardinal points of inflammation, i. e., heat, redness, swelling and pain. At the outset there is a chill, or this may not appear until abscess formation, when it is very light or severe, according to the amount of pus being reabsorbed, or the susceptibility of the patient to the absorbing toxins. There is a rise in temperature from one to three degrees—anorexia and a condition of lassitude; then the disease pursues one of three courses, i. e. if there is not much pus and this is rapidly absorbed, resolution takes place and the symptoms gradually subside, until complete recovery takes place; or the pus rapidly or slowly approaches the surface, and, if no treatment is instituted, there is spontaneous discharge of the pus, mingled with which we have milk if the lactiferous ducts have been damaged; again the pus burrows deep into the base of the gland causing an abscess of the submammary connective tissue, which if left alone may cause general pyemia with death.

Treatment.—If the bowels are not moving freely, it is best to give a saline cathartic, and as soon as the tenderness is noticed, hot applications should be applied at irregular intervals to alleviate, as far as possible, the pain, and if possible to allay the inflammation; the breast should not be allowed to fill sufficient to cause distension. A bandage should be worn to fit the breast snugly and support it.

Different liniments and ointments have been used. Lead and opium wash sometimes applied warm and frequently, containing an extra amount of opium, will to some extent relieve the pain; and again belladonna ointment is used for the same purpose, but the benefit derived from hot applications is more efficient than either, and we prefer spirits of camphor or camphorated liniment applied with gentle massage, to either of the above, and, when we can get the hot applications kept up continuously, we seldom use the poultice.

Where the case goes on to suppuration,

there is only one remedy, and that is an open and free incision at the most dependent part, when the pus can be located. Sometimes taking the child from the breast early and diminishing the milk secretion by salines, will tend to stop the inflammation. In closing we will report three cases, one of each variety as described.

January 12, 1898, we confined Mrs. L. S., aged 20, third confinement. Labor comparatively easy, and everything in good shape. On the 16th was called again; woman had a slight chill, with pain in left breast, radiating to axillary region; temperature $99\frac{1}{2}$, pulse 103, breast red, swollen and painful to touch.

We gave six grains of quinine, applied lead and opium wash, kept milk drawn with breast-pump, and occasional application of hot cloths. On the 17th not much change in condition and pain more severe. Ordered hot applications kept up all forenoon; gave two grains of quinine every four hours until effect was felt by patient; also gave one saline cathartic at beginning, and one small dose morning of the 17th. In the afternoon applied snug bandage after applying and covering breast with a cloth saturated with lead and opium wash; patient slept well that night, redness disappeared next day, and with the exception of a little tenderness when child nursed apparently all the inflammation had disappeared.

In the winter of 1896 we saw a case of mastitis, the mammary gland apparently resting on a water sack, upon which it could be moved about from side to side. The woman had been confined six weeks previously, was emaciated, nipples excoriated and tender, had severe chills and fever every day, no appetite and a deplorable sight indeed when she came to the dispensary. The pain complained of was dull and deep, the gland was hard and secreted a very little milk. Submammary abscess was diagnosed and an incision made below the gland in front, and a large quantity of thin yellowish green pus was evacuated, and the wound drained after being washed out with 1-10000 bichloride solution. The patient

was given iron tonics and cod liver oil, and in four weeks she was a different looking object.

As a representative of the parenchymatous mastitis, the case I shall report is an exception in that it had very few, or almost none, of the symptoms which usually characterize these cases.

On July 24, 1899, I confined Mrs. W. H., aged 24, primipara, a delicately built but perfectly healthy woman; labor uneventful, and at the end of two weeks she was assisting with her household duties. August 10th her husband told me that Mrs. H's left breast was much larger than the other and very hard. She had no pains, chills or fever, and breast was not red; no ulcers or fissures about nipple, but when the child nursed it would scarcely take hold of the nipple, as it was very small, and this caused a little pain; the appetite was fair. We advised him to rub the breast gently, applying spirits of camphor, and then to apply hot applications and to use a shield over the nipple; gave a tonic of beef, iron and wine, dram doses, three times a day, and a small saline laxative. Next day no pain or tenderness, and child nursed but did not seem to get much milk from the breast; still there were no symptoms of inflammation, except breast was large and hard.

On the second day after, or the 12th, he reported no change except he thought there was a little red spot on the breast. We suggested that we had better make an examination, and found everything as he had said; just to the left of, and a little below, the nipple, I found a rather soft red spot about the size of a nickle, and thought I could detect a little fluctuation; upon making a deep incision a pint and one-half of yellowish-green, offensive pus was drawn off. Every day for five days we irrigated the cavity with peroxide of hydrogen 1 part and distilled water 1 part. At this time no milk could be drawn from the breast, but after three or four days the gland commenced to secrete, and now secretes apparently as much as its fellow. The tonic was kept up for a couple of weeks, and to-day the mother and child are in the best of

health. In his case the pus must certainly have been excapsulated, for if such was not the case, we would undoubtedly have had some constitutional disturbance, for, from the character and amount of pus evacuated, this had been some time in situ.

In cases where there is a chronic abscess, with or without fistula, the only certain rapid cure is to anasthetize the patient, make a large deep incision and break down all the dividing lines between successive pus cells, thoroughly irrigate and drain, for if all of these pus sacks are not evacuated and the source of the infection removed, the process of decomposition may go on indefinitely.

SMALLPOX IN ILLINOIS.

Since the publication of the February Journal smallpox has been reported to the State Board of Health as follows:

Aurora, near Arcola (Douglas county), Beardstown, Brownstown, (Fayette county); Princeton, Carterville, (Williamson county); Cairo, Coulterville, Colorado, (Pope county); Chicago, Cordova, (Rock Island county); Confidence, (Fayette county); Chesterville, (Douglas county); Clifton, (Iroquois county); Cutler, (Perry county); Carrier Mills, (Saline county); near Carterville, Clinton, Dix, (Jefferson county); Dixon, Eldorado, (Saline county); Elkhart, (Jackson county); Friendsville, (Wabash county); Fulton, (Whiteside county); Franklin Grove, (Lee county); Galt, (Whiteside county); near Hartsville, (Pope county); Herrin, (Williamson county); Heyworth, Harrisburg, Keysport, (Clinton county); Lockport, Monticello, Mound City, Mansfield, Neoga, (Piatt county); Pontiac (State Reformatory); near Pinckneyville, Quincy, Sterling, Sigel, (Shelby county); Tuscola, near Vandalia, Vermont, (Fulton county), Watson, (Effingham county). Over 300 cases having been reported, with eight deaths, occurring in Cairo, Colorado, near Dixon, Keysport, Stone Fort and near Vandalia.

The Board has found very little difficulty in enforcing quarantine, except in the vil-

lage of Stone Fort, in which the local Board of Health failed to take any measures to prevent the spread of the disease, and as a result over 100 cases occurred. Dr. Egan, the Secretary, ordered the sheriff of Saline and Williamson counties to take charge of the village, and under their direction quarantine was soon established and order restored. Two deaths took place in the village. It is reported that the action of the citizens in violating quarantine was caused by the utterance of a physician, who pronounced the disease chicken-pox, although the disease prevailing was of the unmodified type of smallpox. As the physician persisted in examining patients and assuring them that their disease was chicken-pox, the State Board advised the local authorities to place him under quarantine also.

The State Board of Health has made a personal investigation of many of the cases reported, and has given full instructions to the different municipalities concerned relative to the suppression of the disease, and in addition has distributed several hundred circulars on the prevention of smallpox, and a large quantity of vaccine. The circulars referred to in the last issue of the Journal, have been sent by the Board to every newspaper and local board of health in the State and to several hundred physicians.

VACCINATION OF SCHOOL CHILDREN.

The following preamble and resolution was adopted by the Illinois State Board of Health at the annual meeting held on January 10, 1900:

WHEREAS, Smallpox is epidemic in the State of Illinois at the present time, and there is reasonable cause to apprehend its appearance in all parts of the State; and

WHEREAS, It is a well demonstrated fact that smallpox attacks children in preference to adults—smallpox before the introduction of vaccination being almost exclusively a disease of children—and that the protection of the public health from this

loathsome disease is a paramount obligation; therefore, be it

Resolved, That by the authority vested in this Board in Section 126, Revised Statutes of Illinois, it is hereby ordered that wherever smallpox exists in a community in the State, or is prevalent in adjoining vicinities, no child shall be admitted to any public or private school or other public assemblages within the jurisdiction of said community without presenting evidence of proper and successful vaccination.

This order, which is strictly in accordance with the rulings of the Supreme Court of the State in the cases of *Potts vs. Breen*, 167 Illinois 67, and *Lawbaugh vs. Board of Education*, 177 Illinois 572, has been pronounced legal and enforceable by the Attorney General of the State.

MEDICAL LAWS AND MEDICAL ORGANIZATION IN THE STATE OF ILLINOIS.

At the February meeting of the Morgan County Medical Society a committee consisting of Drs. Josephine Milligan, Carl E. Black and Edward Bowe was appointed to arrange for a special meeting of the Morgan County Medical Society on April 12 to consider the subject of "Medical Laws and Medical Organization in the State of Illinois." It was further decided to invite eight or ten medical societies contiguous to Morgan county to participate in this meeting, and the committee was instructed to issue such invitation. This committee, after due consideration, decided, for convenience, to divide the subject into six general heads. First, "The History of Our Medical Laws, City and County and State." Second, "Efficiency of Our Health Laws." Third, "Efficiency of Our Laws Relating to Medical Education and Practice." Fourth, "Powers and Limitations of Board of Health Under the New Act." Fifth, "Local Medical Societies and Their Relation to District and State Societies." Sixth, "Relation of Medical Societies to City, County and State Medical Offices."

The difficulties with which the passage of proper laws is secured through our legislature and the influences which are continually trying to break down the legislation which the medical profession seeks to secure for the public benefit has given an increasing importance to these subjects. The legislative committee of the Illinois State Medical Society, acting in harmony and in conjunction with similar committees from the Homeopathic and Eclectic State Societies, met with great difficulty in securing the passage of any proper medical laws at the last session of the legislature. They finally succeeded in getting a very imperfect bill through the legislature by conceding many of the most valuable features of the first bill drafted and modifying others until they were almost useless.

When we consider that only a few hundred out of the many thousands of physicians in our great State are members of any medical society, we must recognize this deficiency as the first obstacle in the way of proper legislation.

It is the hope of the Morgan County Medical Society to bring together the members of the medical societies in Central Illinois for a free and unbiased discussion of the questions involved under the above head. Why do so few physicians interest themselves in medical society work? Why do organized physicians meet with such prompt and bitter opposition to proper legislation? Why are quacks and irregulars so frequently chosen to fill the medical offices of the city, county and State departments? These are some of the questions which are continually forcing themselves upon the attention of intelligent physicians, and these are the questions which the Morgan County Medical Society is hoping to bring prominently to the attention of the physicians of Central Illinois. Physicians must meet politicians (legislators) with political methods. It should be evident to all that the only hope of securing proper legislation is in thorough and complete organization of our forces. We must be better organized.—*The Journal Morgan Co. Med. Society.*

The Illinois Medical Journal

PUBLISHED MONTHLY.

Official Organ of the Illinois State Medical Society.

Committee on Publication:

E. W. WEIS, M. D., Chairman, Ottawa.

H. N. MOYER, M. D., Chicago.

G. N. KREIDER, M. D., Springfield.

All communications should be addressed to E. W. WEIS, Secretary, Ottawa, Ill.

All remittances for subscriptions should be sent to Dr. G. N. Kreider, 522 Capitol Ave., Springfield, Ill.

The Society does not assume responsibility for any statements or opinions published in this journal.

Entered at the Postoffice at Springfield, Ill., as second-class matter.

Springfield, Ill., April, 1900.

IMPORTANT NOTICE.

From every part of the State come warnings from conservative physicians of the organized efforts which will be made by unscrupulous mercenaries and religious fanatics on the present laws regulating the practice of medicine and surgery in Illinois, when the next Legislature convenes.

Numerous societies are discussing the best way of meeting these onslaughts, and all agree that thorough organization of the reputable men is the efficient weapon in our hands.

In order to secure the co-operation of medical societies in the enforcement of the present law and needed amendments thereto, the Legislative Committee has decided to call a meeting of the officers of all city, county and district medical societies, at Springfield, Monday, May 14, 1900, at 1:30 P. M., in the Christian Church. This call will embrace at least the President, Vice President, Secretary and Treasurer of each society. If societies desire they can send members of special committees on medical legislation in addition to or in place of these officers. A large and representative gathering of local society members is

what is desired. Officers will please inform me at once of their proposed action in this matter.

(Signed),

J. W. Pettit, Chairman,

Legislative Committee.

THE ORGANIZATIONS OF THE PROFESSION.

In early numbers of this journal there have been references to the subject of professional organization. While it may be claimed that we are reiterating this subject, we think it is one of such great importance, that it should be called to the attention of our readers in almost every issue of the Journal.

We have not infrequently heard physicians say that they did not belong to any medical society, as they could not see the value to them of such a connection. It involved some expense, and more trouble, if their attendance upon meetings was at all frequent. If this were the view of the majority of the profession, there would, of course, be no professional organization, and much that has been accomplished would not have been undertaken. Few physicians will deny the value of a proper medical practice act, vigorously enforced, in holding the personnel of the profession. None, we think, will deny the importance of adequate preparation for the study of medicine, and a thorough investigation of the qualifications of those seeking the license to practice. An improvement in the personnel of the profession is of direct benefit to all, not only in maintaining professional relations upon a high level, but also in the standing in which each individual of the profession is regarded by the community. We feel safe in saying that whatever of improvement has been reached along the lines of legislation and requiring the colleges to adopt a higher standard for en-

trance into the profession, has been accomplished by the profession as an organized body. If the entire profession of Illinois were properly organized, they could secure any legislation which was desirable in the interests of the public health. In addition, laws could be passed which would safeguard the entrance into the profession, thus tending to elevate the standard of professional acquirements.

These advantages are so obvious and appeal so directly to every individual member of our profession, that we feel we cannot too earnestly urge upon each the necessity of immediate affiliation with a local medical society. Our first duty is always to the County Society; next, to the State, and, after that, if we have further time and energy, it can be devoted to the National Association. Since the State Journal was established, there has been a marked revival in the State organization. A number of societies have been revived, and several instituted where none existed. There has been a very satisfactory increase in our membership, and we trust that this work will go on until Illinois has one of the strongest State Societies in the country, which it will have, when a large percentage of the profession in the State is included within its ranks. M.

THE SOCIETY, THE STATE BOARD OF HEALTH, AND THE LAW.

The initial, median and final object of the organization known as the State Medical Society is the protection of its members. This protection designs not only to enlighten by bringing before them new scientific truths and dispelling ignorance so that they may be better equipped for the practice of a noble profession. It designs also to make its members powerful in the commonwealth to prevent piracy on the

part of cunning mercenaries who, under the cloak of our honorable professional reputation, conspire to rob the people of health and property. This is not only our right but our duty as well. The State has recognized this right and authorized the appointment of a State Board of Health, one of whose most important functions it is to pass upon the moral and professional attainments of the persons pretending to cure disease. Further than this the State Board of Health is not obliged to act, but fortunately for the profession at large there has been no shirking by the Board of duties implied by the law and more or less justly expected by the profession. There is widely prevalent among the individual members of the profession a very mistaken idea of the duties of the State Board of Health in the prosecution of persons practicing contrary to the law.

Certain physicians think that the State Board of Health, located at the capitol, should know intuitively when a mercenary has located in their bailiwick and should forthwith proceed to drive him out. Others think that they have done their duty if they have written a letter to the Secretary of the Board telling of the alleged misdeeds of the trespasser. If the Board does not intuitively know, and drive out the quack complained of by number one or is not able from the meager information supplied by number two to authorize a criminal proceeding in the courts, both numbers one and two immediately go into an active state of eruption and condemn the law and the Board. Conservative men will readily see that it is not the duty of the Board to maintain an army of detectives to protect the profession against the competition of illegal practitioners, and it would also be impossible for the Secretary to authorize prosecutions without full and convincing informa-

tion and the assistance of a united profession in the community where a suit is brought. Members of the profession throughout the State are recognizing the true function of the Board of Health, and are acting along the lines laid down by it. In Danville and Peoria a close offensive and defensive alliance of the profession has been perfected, and not only are quacks being fined and driven out, but the local press has been brought into line and instead of sneers and abuse the profession is treated with the respect and esteem which it deserves.

The latest example of professional organization along these lines which has come to our notice is that of the Fulton County Medical Society. This society has addressed a card to each member of the profession in the county reading as follows: "At the last meeting a committee was appointed to attempt to suppress unlawful practice of medicine in this county. You are earnestly requested to inform the member most convenient as to any unlawful practice of medicine coming to your knowledge, together with the names of the witnesses and any other information or suggestions that would contribute toward a conviction. The earnest co-operation of every physician in the county is desired in this effort and the society agrees to suppress all irregularities when proper evidence can be obtained."

The physicians of Canton, the county seat, have individually pledged their "hearty support and co-operation to the State Board of Health in its efforts to suppress the illegal practice of medicine in Fulton county, and throughout the entire State." This society evidently recognizes that all or nearly all the responsibility of prosecutions rests upon the local organization and that the duty of the State Board is advisory and executive. Contrast the attitude of Peoria, Danville

and Fulton county with the state of affairs developed under the heading "Startling Facts" in the February number of the Journal, where it appears the local profession sits inactive and powerless under violations of the most flagrant character.

Still another disgraceful state of affairs has been brought to our attention recently. It appears that the State Board of Health learning of the depredations of a magnetic healer of the most blatant type in one of the larger and more intelligent communities of the State, has been endeavoring for nearly a year to bring him to the bar of justice confident that the law would effectually dispose of him. A coroner's inquest was held on one of the professor's patients June 20, 1899. The professor admitted that he had had only five weeks instruction, knew nothing of diagnosis or symptoms, and used practically the same treatment for all diseases, whereupon, wonderful to relate, the jury decided that he was "grossly ignorant of the physical condition of the body of the deceased and incapable therefore of properly treating the same."

Notwithstanding this condemnation on the part of the law, and much other information equally as damaging, it has so far been impossible to bring effective action under the law regulating the practice of medicine to bear on the case. The reasons given are the apathy and disorganization of the profession as a whole, and the fact that one of the leading papers, *the columns of which are largely given up to the professor's advertisements*, is owned in whole or in part by influential medical men of the community.

K.

Dr. J. L. Shepard, of Galesburg, has accepted an appointment as surgeon in the United States army, and leaves April 1 for Manila.

Correspondence.

Editor Illinois State Medical Journal:

I am sorry to seem in any way to be antagonistic to the representatives of the State Board of Health. It is my earnest desire to do everything which will be beneficial to the medical profession, and it may be beneficial to the profession at large to know wherein the handling of the Dixon epidemic may have injured the cause of medical legislation.

Had the State Board used ordinary discretion there would have been no antagonism. As physicians, we claim the right to base our diagnosis upon our honest judgment, but should be willing to set our diagnosis aside when an honest opinion based on wider experience shows us our mistake. I think the majority of the profession were in this position when Dr. Nelson came to Dixon. The epidemic had been with us for months, but in so mild a form as to excite no alarm. This was the spirit in which I gave my diagnosis of "erythema bullbosum" at the council meeting to which Dr. Nelson refers, and this spirit was manifest when the profession and business men present directed the council to pay Dr. Hyde a large fee for an expert opinion. Before Dr. Hyde, came Drs. Egan and Spalding. Farther, Dr. Spalding threw doubts upon the accuracy of Dr. Hyde's diagnosis by a public remark that for years he has been called to see all of Dr. Hyde's cases of small pox.

The "embryo law student," to whom Dr. Nelson refers, has been for years a prominent lawyer and leading politician.

Now I fear that the six thousand dollars which the small pox cost Dixon, with large interest, will be taken from the State Board of Health appropriation, as I have been creditably informed by a politician that every exaggerated newspaper item and every record of cases where vaccination has been followed by the epidemic, or *vice versa*, and they are numerous, have been carefully filed for future reference.

Harriet E. Garrison.

Dixon, Ill., March 10, 1900. -

PEORIA OUT FOR THE NEXT MEETING.

Peoria, Ill., March 8, 1900.

G. N. Kreider, M. D.,

Treas. Ill. State Medical Society,
Springfield, Ill.

Dear Doctor—Yours of Feb. 26th ult. duly received. This is my last day according to the purport of notice. Not wishing to be dropped from the roll of membership in the State Society at this particular time, I herewith remit the \$3.00, begging pardon for my negligence. After carefully looking over contents and style of Illinois Medical Journal, I am pleased to commend it to all honorable practitioners of the State. It is the only medical journal that reaches me—wherein all advertisements of proprietary mixtures and other questionable matters have been excluded. I can see no good and valid reasons why a journal of high order, entirely above suspicion cannot be successfully issued by the State Medical Society in conjunction with the State Board of Health. The greatest fault or criticism now being that it is too limited in matter.

At the present time we need to stand together on questions of medico-legal significance. I am pleased to note in the February issue of the Journal favorable comments on the Peoria City Medical Society. We have taken a strong earnest stand in support of the State Board of Health in all its honest efforts in support and enforcement of the Illinois Practice Act. Our efforts here have been productive of good. The daily press of our city has ceased or greatly modified its attacks on the qualified profession. I sent you a copy of one of the papers of Peoria Dec. 20, containing the report of a committee of City Medical Society, which was received and adopted by the Society at their meeting Dec. 19. This is our stand, and quacks know it and are already pulling in or seeking other "pastures green." Unfortunately some of the very greatest and most injurious humbugs that infest our city are, under the weakness of the law, permitted to play upon the credulity of the people. Their cause being strengthened by a certificate of qualification, which they de-

light to exhibit. However, let us continue the work for higher qualification until the public are educated more thoroughly in the premises, then we may secure better medical laws. At the present time psychology under various names is having its run. It will have its day, and naught can stop it until it runs its course. I assure you that I will do all I can to aid in the cause.

Another reason why I do not want to drop out of the State Society is we want the semi-centennial meeting here. We believe we are entitled to it by reasons of its very beginning and history. It has been promised us, and we are in the field to win. It is our purpose to send a creditable committee to the meeting at Springfield next May. Please bear this in mind, and if not inconsistent with your location or position lend a helping hand.

Yours respectfully and fraternally,
J. W. Hensley.

County and District Societies.

CRAWFORD COUNTY MEDICAL SOCIETY.

The Crawford County Medical Society met in the office of Dr. E. L. Birch, Robinson, Ill., Thursday, March 8, 1900, at 2:30 P. M.

Dr. S. D. Meserve was elected president pro tem.

The following members were present: Drs. C. Barlow, S. D. Meserve, L. J. Weir, E. L. Birch, A. G. Meserve, T. N. Rafferty and J. Weir.

Dr. L. J. Weir read a well prepared paper on "Vaccination," in which the history of the subject was reviewed and statistics quoted showing the value of this great boon to humanity, also the method of operating and care of the patient following vaccination. The paper was received and a general discussion ensued, participated in by all present. All agreed that glycerinated virus gives the best results.

Adjourned to meet the second Thursday in May.
John Weir, Sec'y.

PHYSICIAN'S CLUB OF KEWANEE.

The Physician's Club was organized in Kewanee, Feb. 15th. Dr. W. H. Cole was elected President; Dr. J. C. Smiley, Vice President; Dr. Wm. D. Hohmann, Secretary and Dr. Hattie B. Melaik, Treasurer.

An adjourned meeting was held Feb. 21st, at which the constitution and by-laws were adopted, the by-laws containing this extra provision: "That besides notice of meeting of this Club, none of the proceedings shall be published in the daily press, and it shall be considered unethical to have a name mentioned in the daily press in connection with report of any accident or case of illness."

Regular meetings will be held the first Thursday of each month. The first regular meeting was held March 8th, when the following program was rendered: A Symposium on Pneumonia. "Etiology and Pathology," by Dr. W. D. Hohmann. "Symptomatology and Diagnosis," by Dr. C. W. Hall. "Treatment," by Dr. F. O. Lowe. The discussions were opened by Drs. W. H. Cole and J. C. Smiley.

Twelve members were present and all joined in the discussion.

Wm. D. Hohmann, Secretary.

DECATUR MEDICAL SOCIETY.

The Decatur Medical Society met in regular session on Thursday evening, Feb. 22, President W. J. Chenoweth in the chair. The Secretary was made a permanent member of the programme committee, two other members to be appointed monthly to serve one month.

Five new members were voted in, making present membership forty-one.

The programme was a "Symposium on Diphtheria," as follows:

1. Etiology and Bacteriological Diagnosis, Dr. C. Martin Wood.
2. Clinical Diagnosis, Dr. Cass Chenoweth.
3. General and Medical Treatment, Dr. W. C. Bowers.
4. Antitoxine, Dr. Tyler Meriweather.
5. Intubation and Tracheotomy, Dr. Wm. Barnes.

6. Prevention and Disinfection, Dr. H. C. Jones.

7. Complications and Sequelae, Dr. W. B. Hostetler.

The papers were of a high order and were fully discussed.

The bacteriology was illustrated by large charts and microscopical slides of both the pure culture and the mixed infection.

Very favorable reports were made of the use of antitoxine, both as a prophylactic and curative agent, and no one had seen any ill effects from its use.

Those taking part in the discussion were Drs. Randall, Barns, Jones, Chenoweth, Brown, Miller, McClelland, Meriweather, Bumstead, Patterson and Dixon.

There were present forty members and visitors.

W. C. Wood, Sec'y.

VERMILION COUNTY MEDICAL ASSOCIATION.

The Vermilion County Medical Association met at Danville, Ill., March 9 in regular session. The paper of the evening was on "Normal and Abnormal Labor," by Dr. B. Taylor, of Westville, Ill., which elicited a general and interesting discussion, closed by essayist.

The report of the committee on antivivisection Senate bill No. 34 was accepted and committee discharged. The committee reported that it had drafted letters and mailed a copy to each member of the Senate, committee, hoping that it might have some influence against the bill.

The Association took up the dead-beat question, with the primary and highest object that it is our duty, as representative men to the Society, to help educate if possible this class of men and women to more correct ideas of right living. There can be but little question that the doctor through past generations has caused men to feel that they pay their medical bill only if they choose to. It is time that we take such steps as will make an individual feel that if he desires our services, he must be a man to pay them. We are guilty of a social crime every time we encourage a man by our laxity to continue the old life of a dead-beat. We are of course to distinguish be-

tween the "poor devil" and the "the devil's poor." On the other hand this move is self-protection which is not to be despised, as wasted time can be used for self-improvement or recreation.

This Association has a standing committee on violations of the Medical Practice Act, which works in conjunction with our efficient Secretary State Board of Health, Dr. J. A. Egan. During the past year we have prosecuted and convicted three violators, and through the warning notices of Dr. Egan have suppressed considerable quackery and illegal midwifery. With several others the committee are constantly watching to secure sufficient evidence on which to prosecute, a thing that often proves more difficult than one may imagine.

I feel that every section of the State should use their efforts to aid the State Secretary in instituting reform.

E. C. Clark, Sec'y.

PEORIA CITY MEDICAL SOCIETY.

At a regular meeting of the Peoria City Medical Society held at the National Hotel on Tuesday evening, Feb. 20, 1900, the following members were present: Drs. McIlvaine, Will, Wallace, Lucas, Kanne, Marcy, Plummer, Brobst, Skelly, Sloan, Roskoten, Roberts and Stephenson.

A communication was read by the secretary from Dr. Carl E. Black, Jacksonville, in which he invited our Society to meet with the Morgan County Medical Society in Jacksonville on Thursday, April 12, to consider the subject of "Medical Laws and Medical Organization in the State of Illinois." On motion of Dr. Miller the communication was received. Dr. Marcy made a motion that Dr. Eckard be appointed to represent this Society at Jacksonville on April 12, 1900, and that the Society pay towards his expenses the sum of \$5.00.

Dr. Will introduced a resolution for the appointment of a committee of five members for the purpose of laying plans to secure next (1901) meeting of the State Medical Society in this city.

The resolution was amended by Dr. Marcy, he moving that a committee of ten

instead of five be appointed, and that our President be made chairman of the committee.

This resolution was passed and the matter of appointment left in the hands of our President. The following is the committee to secure the State-Society in 1901: Drs. O. J. Roskoten, chairman; E. M. Sutton, vice president; H. M. Sedgwick, secretary; O. B. Will, A. Kanne, J. W. Hensley, Dr. M. S. Marcy, R. A. Kerr, W. G. Sloan and C. H. Brobst.

Dr. Kanne introduced a new by-law, which is as follows: Every newly elected member must sign our constitution and pay the initiation fee within thirty days after being notified of his election. In default of this the member will forfeit his election. On motion of Dr. Marcy this resolution was adopted.

Dr. Skelly, of Pekin, read a paper on "My First Capital Operations and the Fees Obtained Therefor."

On motion the Society adjourned.

H. M. Sedgwick, Sec'y.

ADAMS COUNTY MEDICAL SOCIETY

We are having good meetings—held each month in the Chamber of Commerce, also have a Clinic same day in the forenoon, at either St. Mary's or Blessing Hospital. At our meetings we have a good attendance—have added and are adding to our membership all the time. At our meeting of Feb. 12, nineteen doctors were present and four applications for membership.

Dr. Otis Johnston had a laparotomy at St. Mary's Hospital in the morning. He also gave a clinical report at the Society in the afternoon, of the following cases:

I. A case of pyonephrosis of left kidney in a woman. On incising it he found fourteen calculi in kidney and ureter, also stenosis of ureter. Removed kidney by abdominal section. Patient survived five days. Some of calculi were over one inch long by three-fourths inch thick.

II. Abdominal section and removal of tumor weighing 15 pounds, followed by complete impaction of the rectum. Made a good recovery.

III. Partial obstruction of Wharton's duct. due to impaction of salivary calculi, on removal it was found to weigh 8 grains. Report discussed by W. W. Williams, who was present at operation of first case.

Dr. Retticker showed embryo of four weeks.

Dr. Christie, Jr., gave report of case of chylous ascites.

The 28th of March, 1900, being the fiftieth or golden anniversary, it was decided after some discussion to celebrate the occasion with a banquet, to be given at the Newcomb hotel.

Committee appointed: Drs. Hart, Center and Christie.

On Jan. 8 Dr. Henry Hart held a clinic at St. Mary's Hospital. Did a laparotomy to relieve a severe retroflexed uterus, bound down with adhesions involving the tubes, where operation to restore the uterus to position had failed.

Dr. Johnston also showed the following cases:

I. Fracture of leg. Dislocation of head of humerus.

II. Tubercular osteomyelitis of inferior maxillary bone, requiring resection of one-half of bone.

III. Large tubercular ulcer of breast, treated by extirpation and plastic operation.

Dr. C. D. Center reported to the Society a case of abdominal pregnancy in a woman of 37 years of age. Twelfth pregnancy. Four miscarriages before term, six died at birth or immediately after, one living child. Had three hemorrhages during the last pregnancy. Dr. Center opened abdomen and removed a large full term child macerated. He enucleated the sac, found general adhesions, abdomen closed by one suture, using mikulicz drain. Patient recovered without any bad symptoms.

Dr. Christie, Jr., reported a case of appendicitis operated on by him that day. The appendix was shown containing a large concretion.

Cases were discussed by several members. Adjourned.

W. W. Williams, M. D., Sec'y.

SANGAMON COUNTY MEDICAL SOCIETY.

The Sangamon County Medical Society met in the County Court Room Monday evening, March 12, 1900, with the President in the chair. Members present: Bartlett, Barker, Babb, Berry, Bowcock, Griffith, A. L. Hagler, M. T. Kelly, Kreider, Langdon, Moffitt, Munson, Nelson, A. E. Prince, Stericker, Young, McElfresh, A. D. Taylor, Percy Taylor, Turley, and L. L. Leeds, S. Ellen Rourke and Stuve as visitors.

The following were elected to membership: R. E. McClelland, Williamsville; Paul Bain, Pleasant Plains; V. Guttery, Middletown; L. L. Leeds and S. Ellen Rourke, of Lincoln, and G. H. Vernon, of Farmingdale were proposed as new members, and their applications were referred to the Board of Directors.

Communications from Hon. S. M. Culom and B. F. Caldwell were received, read and placed on file. The program of the evening was then taken up, the topic being Pneumonia, and the same was opened by D. A. W. Barker on Etiology. Stated that exposure at this time of year with improper care of the person induced to disease, which prevailed more in winter and early spring months. Persons exposed to hardships and cold, with illy ventilated dwellings, most subject to disease.

Active agent a micro-organism. Cited the fact that disease likely to follow injuries, but thought that alcoholism the most frequent cause of disease. Disease becomes epidemic in localities with lack of hygienic surroundings, filth, and dirt. No disease more frequent than this, and repeated attacks occur in individuals. Is a disease of early and old age from fifth or sixth year, diminishing until the age of eighteen or twenty, and then increasing with age, taking off the aged with short and often not painful illness. Individual susceptibility spoken of as a primary exciting cause for the inflammation and growth of specific organism.

Dr. Stericker followed with Differential Diagnosis; divided same into four heads: acute pneumonic phthisis, meningitis,

broncho-pneumonia, and acute pleurisy, with effusion.

First contrasted primary lobar pneumonia with acute pneumonic phthisis. In latter disease there is an inherited predisposition, a previous intercellular disease. In lobar pneumonia the attack is sudden, with severe rigor and rapid rise of temperature; fever of continued type, terminating in crisis, and no drenching sweats, except at time of crisis; whereas in pneumonic phthisis the attack is generally more gradual, with repeated fits of chilliness, rarely rigor, often following exposure or a cold (so-called); fever of remittent type often becoming intermittent, without crisis; drenching sweats, present and often repeated. In pneumonia herpes common; emaciation not marked; pulse and respiration ratio considerably disturbed; sputa rusty colored and viscid and sticky, and containing pneumococcus. In pneumonic phthisis herpes absent; emaciation marked and rapid; pulse and respiration less disturbed; sputum more purulent, although it may contain blood; copious and contains bacilli and yellow elastic tissue.

Physical signs in lobar pneumonia are as a rule referable to base of lungs, while in pneumonic phthisis to the apex of same; in former disease usually limited to one lobe, in latter extends from apex to base.

Describes the differential signs between pneumonia and meningitis; broncho-pneumonia and lobar pneumonia, and acute pleurisy and pneumonia. In latter disease—pleurisy—aspiration yielding serum, and in pneumonia a few drops of thick blood.

Dr. Kreider considered the complications of pneumonia, viz.: Pleurisy, pericarditis, endocarditis, heart clot, meningitis, peripheral neuritis (drunkards), gastritis, colitis and jaundice, parotitis, Bright's disease, rheumatism, affection of the skin, as herpes, urticaria, etc., and tuberculosis and abscess of the lung. Taking these up in the order of their importance, believed that pleurisy of greater or less severity would be found in almost every case of pneumonia; the stitch in the side of course being due to invasion

of the pleural covering of the lung. Usually this subsides, but very frequently an effusion results, which is of grave importance. This may be an ordinary mild hydrothorax, sero-fibrinous with a large amount of fibrin thrown out, which may form thick, tenacious layers, or there may be an empyema. Reported having seen a case of empyema following pneumonia, in boy 16 years old, which yielded to incision and washing out.

The aspirating needle is the refuge from error in these cases.

Another complication, and an unusual one, unnoted by authors, was an invasion of the skin, not the usual herpes of lips and nose, but an eruption which occurred in a large number of cases treated at hospital from among the soldiers encamped here in May and June, 1898. Stated the cause was changed conditions from clean, healthy homes to the camp where dampness and dirt was the usual condition. The cases in which pus formed in the eruption, recovered, the others died. Stated that it would be interesting to know the character of the germ in these pustules, but on account of the great amount of work, incident to this busy time, this was overlooked. Meningitis was a complication in a number of cases occurring among soldiers. One case was cited in which the pneumonia ran its course with brain symptoms, but so obscure were the symptoms of meningitis that a certain diagnosis was not made until the pneumonia was over. - Said that no doubt the pneumococcus would have been found in the cerebro-spinal fluid, which was removed by lumbar-puncture. Patient recovered after a long siege of meningitis. Stated that meningitis from the pneumococcal infection was a much milder form than from the diplococcus meningitis of Fränkel.

A. D. Taylor considered treatment: Assuming that pneumonia is a special infectious fever, its duration limited to the life of the germ, the destruction of which is affected by its own toxin, the rational treatment of it in the future will be in the line of serum therapy. Varying success has

been reported by the investigators, but enough cases have been treated to give a hopeful outlook for the future in this line. Until such time as an antitoxin with antidotal power shall be found, it must be admitted that we have no specific treatment; but abundant opportunity is afforded the physician to display his skill in the treatment of same. In severe cases of croupous pneumonia the physician has occasion for use of all of his diagnostic acumen and for the exercise of his best therapeutic judgment; employing drugs at the proper stage with definite ends in view. Divided these stages into four: Hyperemia, or engorgement; consolidation, or red hepätization; crisis, and resolution or gray hepätization. For the first stage there are only two methods which can be recognized as of great value, other procedures being subordinate measures. These two methods are bleeding and the use of such drugs as our clinical and physiological knowledge tells us are proper. Described the character of patient in which bleeding was indicated and of greatest value. Secondly, in the use of drugs where bleeding is not desirable or prudent, the use of smart saline cathartic or mercurial one should be administered. The application of cold in the early stage of disease spoken of, and the use of cold sponging in cases where ice bag is inappropriate recommended. The aged, the very young and the anaemic will do better with warm applications, as flaxseed and mustard poultices. Aconite, veratrum viride and allied remedies have been used extensively. Cold applications recommended over other remedies. In the second stage the treatment is much more difficult and hazardous than in first stage. Nourishment and supporting treatment of importance, guarding against sudden collapse from heart failure, watching the sound lung and protecting it from passive congestion or oedema, and lastly watching lest some complaint involving other organs steal a march upon the physician, and convert anticipated victory into defeat. Strychnia and atropine as stimulants to the heart and respiration of great value. The eliminating channels

must be kept open, the kidneys and bowels must be kept performing their functions, and the skin must also receive attention. For troublesome cough codein, chloride of ammonium, or carb. of same. Local applications of cotton or wool, covered with oil silk jacket, and if pleurisy develope, a fly blister or mustard leaf plaster. The crisis brought with it danger of sudden collapse, and required the use of stimulants and heart tonics. The stage of resolution speedily followed that of crisis. If convalescence proceeds favorably, little treatment is required other than nourishing food and perfect rest, with exclusion of company and continuance of external applications. If resolution is delayed potassium iodide should be administered and the surface should be painted with tincture of iodine. Complications should be treated independently so far as is found practical. Spoke of the administration of large doses of digitalis in the first stage as having aborted the disease or hastened the crisis when the disease has entered upon the second stage.

Helen Babb considered the sequelae of pneumonia: Took croupous pneumonia as a representative of the class; the sequelæ of other forms being much the same as in the croupous form. Should resolution not take place, one of four unfavorable terminations may follow, viz.: Abscess, gangrene, interstitial or fibroid pneumonia, and tubercular phthisis.

In abscess there is continued high temperature, expectoration of pus containing yellow elastic tissue. In gangrene, intensely disagreeable odor, with thin foetid expectoration and containing elastic tissue. In interstitial or fibroid pneumonia there is invasion of interstitial lung tissue, which undergoes organization into permanent tissue, resulting sometimes from failure of the lung to expand after resolution, with collapse and uniting of the alveoli walls. The connective tissue transformation is generally found in bands and patches which merge gradually into the normal tissue. Fibroid pneumonia very frequently passes into fibroid phthisis. Tubercular phthisis results from implantation of tubercular

bacilli in a suitable medium, formed by the pneumonia. Endocarditis if present generally involves the left heart, and is more often found in those persons with old heart lesion. Meningitis may accompany a malignant endocarditis. If in the complication there be sero-fibrinous purulent pleurisy, there may result a thickened pleura with adhesive bands binding the lung tissue. Acute nephritis with pneumonia may pass into the chronic form.

Lunch was served and the discussion of the topic was continued. Dr. Griffith spoke of the benefit derived from the use of iodine and small blisters in the treatment of pneumonia. Dr. Stuve said that he had considered bleeding a useful and important part of the treatment of pneumonia, when he was practicing in days long gone by. Dr. Leeds also had made use of the lancet, and thought well of it in the treatment of the disease, until a growing sentiment against its use had caused him to abandon it. Used calomel, opium, acetanilid, cold and warm applications, but preferred the hot applications when they could be properly applied.

Several other members participated in the discussion. It was voted not to hold a meeting in May, as the State Medical Society would convene in this city the middle of the month.

No further business appearing, the Society adjourned.

Reported by courtesy of

Edward P. Bartlett, Sec'y.

State Items.

Dr. W. S. Caldwell, of Freeport, is making one of his periodical globe circlings, and writing interesting letters to the Journal A. M. A. on medicine in the far East.

The Adams County Medical Society celebrated the semi-centennial of its organization by a banquet at the Newcomb Hotel. There was a large attendance of the profession, and a pleasant time. Full particulars will appear in our next issue.

ACTIVE PRACTICE AT ELGIN ASYLUM.

Elgin, Ill., March 10.—(Special.)—Dr. Lucius F. Foote, of Rockford, of the Insane Asylum staff here, and G. E. Dunton, an attendant living at Dixon, were to-day given the alternative of resigning their positions or being discharged by Superintendent Whitman. On Friday Dunton assaulted Dr. Foote when he was suspended on complaint of other employes. Dr. Foote is unable to leave his bed, and declares he has been unfairly treated. He will appeal to the Board of Trustees. Superintendent Whitman says Dr. Foote and Dunton are both at fault.

CONVICTION UNDER MEDICAL PRACTICE ACT.

After several days' consideration of the law and evidence, Judge Puterbaugh, in the Peoria Circuit Court, fined Charles Lincoln Smith \$100 and costs for violation of the public health laws. Smith is a traveling oculist, who knows how to charge enormous prices for gold-rimmed plate glass. He claims to be merely a mechanic, fitting glasses on the same principles that apply to glazing. But the defense didn't go with the judge, and Hon. Smith has to pay the fine. This is the same gent who loaned his distinguished air to this city (Springfield) for several months last summer with his silk hat and tan shoes.—Springfield Evening News.

TALK OF HEREDITY IN CRIME.

The Socio-Legal Forum, an association of physicians, lawyers and sociologists, recently formed for the purpose of promoting scientific methods for the prevention and correction of crime, met recently at the Sherman house, Chicago. Heredity was the subject under discussion, and Dr. Albert Schneider, of the Northwestern University, read a paper on "Heredity as a Factor in Developing and Maintaining Crime and Criminals."

"One boy," he said, "will steal and lie for the same reason that another is honest. It is natural in either case. Acquired characteristics may be transmissible to the next generation to the same extent that inherited

characteristics are. Criminals are like poets; they are born, not made. Crime is born of crime. The alcoholic habit is not inherited, but the tendency to become a victim of the habit is inherited.

"One of the most important matters that should be considered to-day is the prevention of marriages among paupers, criminals, dependents and delinquents of all kinds."

Dr. D. R. Brower led in a discussion of the paper. He said:

"The criminal is usually the subject of the tyranny of his construction. We find the basis of his character in the preceding generations. The law with its conservatism has failed to recognize this fact. The crime and not the criminal has been the consideration. The laws should be changed so that the criminal is the consideration."

Dr. W. Xavier Sudduth, professor of morbid psychology at the Post-Graduate Medical School, advanced the theory that environment and tradition are stronger influences than hereditary characteristics, and this difference was discussed pro and con by nearly all the members present. The division of opinion was nearly equal. Dr. Sudduth said:

"Tradition and environment have more to do with the place of man in the social scale than heredity. Every child is by nature a savage, and it is his early training that has a large influence in making him one thing or another. A tendency may be inherited, but a habit seldom is."

Havana, March 22.—The remains of Mr. Taylor, who was found lying dead in his home, were buried after much difficulty. It was found he had been dead about ten days and had been without any medical treatment, relying on one Deems, a so-called "divine healer," who has visited Havana frequently. The wife and mother attempted to prevent anyone coming into the house, even though the odor was almost unbearable, saying the healer was coming to resurrect him. The hearse had to be fumigated.

Chicago News Items.

WHAT THEIR HOMES COST.

Dr. J. B. Murphy has purchased from Isaac Woolf the residence at 3305 Michigan avenue, for \$65,000. The lot has a frontage of 50 and a depth of 143 feet. Dr. Murphy will occupy his new dwelling on May 1. The house was built four years ago.

The former residence of H. H. Kohlsaatt, at 2978 Prairie avenue, 52x178 feet, was sold for Frank K. Bacon, of Philadelphia, to Dr. Henry T. Byford for \$35,000.

Mrs. Caroline Rosenthal sold the residence at 3564 Grand boulevard to Dr. T. J. Watkins for \$14,500.

Dr. A. C. Klebs delivered a lecture on the "Nature and Prevention of Consumption," at the Academy of Sciences, February 23.

Dr. Arthur R. Reynolds, commissioner of health, recently addressed a letter to the surgeon-general of the army, relative to the danger of importing bubonic plague by bodies shipped from the Philippines, and suggesting that such shipment be discontinued until the plague ceased to exist in the islands.

The directors of St. Luke's Hospital have changed the name of that institution to St. Luke's Free Hospital. This change was necessary in order to obtain a mortgage of \$50,000 on the property. The directors state that the hospital has been steadily running behind, because of its liberality in treating patients free of charge. The debts amount to more than \$30,000.

The question of the validity of the new medical registration law in Michigan, is now having consideration in the courts, and on February 20 the Supreme Court issued an order directing the State Board of Medical Registration to show cause, on March 6, why it should not be mandamusd to

issue a certificate of registration to a certain graduate of the "Independent Medical College of Chicago."—diploma mill.

JOYS AND SORROWS OF "DR." DOWIE—WANTS AN HUMBLE HOME.

"Dr." John Alexander Dowie is reported as negotiating for the former residence of John W. Doane, at 1827 Prairie avenue, 80x170 feet. The property recently passed into the hands of Riley & Robinson, of New York, during a real estate deal at a valuation of \$125,000. The house originally cost \$265,000. It is without a tenant at present.

Dr. Geo. F. Butler, Chairman of Section 3, of the Illinois State Medical Society, will assume charge of the Alma Sanitarium, Alma, Mich., May 1, succeeding Dr. E. S. Pettyjohn, who resigns the superintendency. He will spend a year in rest and medical study abroad. Dr. Butler will continue with his work in the College of Physicians and Surgeons. We wish him the best of luck in this new undertaking.

DOWIE IS SUED FOR \$75,000.

The declaration in the suit of Edward A. Flanders, 1618 Prairie avenue, against John Alexander Dowie, for \$75,000 damages for alleged slander and libel, has been filed in the Circuit Court. The defendant is declared to have published in a paper conducted by him statements that Flanders perjured himself at the inquest over the body of his wife, and that he had plotted to blow up Zion with dynamite. He declares Dowie made libelous statements in a series of sermons delivered last August. Mrs. Annette Flanders, wife of Edward A. Flanders, was a member of Zion, and was attended at the time of her death by Elder Dewitt Holmes and Mrs. Henrika Bratsch of Zion.

WILL DISINFECT DOWIE HOUSE.

Chief Medical Inspector Spalding, after an investigation of the death of Alice Feigler at Dowie's sanitarium, 1635 Michigan avenue, repored to the department that the

place must be disinfected, and until that was done should be quarantined. The disinfection is to be made at 9 A. M. to-day. The department announced that the disinfection would be made regardless of opposition, by force if necessary.

The girl died on Thursday. Undertaker Ralston removed the body to 22 Adams street without a permit. Yesterday morning Dr. C. R. Hanson, said to be a follower of the Zion leader, asked for a burial permit, tendering a death certificate showing that death was caused by diphtheria. The officials refused to issue the permit and notified the Coroner.

Dr. Noel of the Coroner's office investigated, after which the burial permit was issued. The report was current that Dowie would hold a public funeral in the afternoon, but the Inspector of the Health Department was present and no attempt was made to carry out the rumored plan. The body was placed in a hearse, which drove to the Home of Hope, a Dowie institution at 18 Sixteenth street. At that place a carriage appeared, which the girl's relatives entered, and the trip was made direct to Oakwoods cemetery.

NOTICE OF EXAMINATION.

The regular quarterly examination of the Illinois State Board of Health, under the law in force July 1, 1899, will be held at the Great Northern hotel, Chicago, on April 11, 12, 13 and 14, 1900. All applicants should be present at 9:00 o'clock A. M., Wednesday, April 11.

The order of examination on April 11 will be as follows:

FOR PHYSICIANS.

From 10:00 A. M. to 11:30 A. M. Chemistry.

From 11:30 A. M. to 1:00 P. M., Physiology.

From 2:00 P. M. to 5:00 P. M., Anatomy.

FOR OTHER PRACTITIONERS.

From 10:00 A. M. to 1:00 P. M., Chemistry.

From 2:00 P. M. to 5:00 P. M., Anatomy.

FOR MIDWIVES.

From 10:00 A. M. to 1:00 P. M., Normal Labor.

From 2:00 P. M. to 5:00 P. M., Abnormal Labor.

A special examination of the Illinois State Board of Health, under the law in force July 1, 1899, for physicians only, will be held at the Great Northern hotel, Chicago, on May 2, 3, 4 and 5, 1900. All applicants should be present at 9:00 o'clock A. M., Wednesday, May 2.

The order of the examination on May 2 will be as follows:

From 10:00 A. M. to 11:30 A. M., Chemistry.

From 11:30 A. M. to 1:00 P. M., Physiology.

From 2:00 P. M. to 5:00 P. M., Anatomy.

Important Notice: This notice of examination should be substituted for those announcing examinations on April 25, 26, 27 and 28, and on May 1, 2, 3 and 4. The next examination following the regular quarterly examination on April 11-14, will be held on May 2-5.

A special examination of the Illinois State Board of Health, under the law in force July 1, 1899, for physicians, will be held at the Supreme Court House, Mount Vernon, Ill., on May 22, 23, 24 and 25, 1900. All applicants should be present at 9:00 o'clock A. M., Tuesday, May 22.

The order of the examination on May 22 will be as follows:

From 10:00 A. M. to 11:30 A. M., Chemistry.

From 11:30 A. M. to 1:00 P. M., Physiology.

From 2:00 P. M. to 5:00 P. M., Anatomy.

GENERAL DIRECTIONS FOR EACH EXAMINATION.

The order of examination cannot be varied from in any respect, and every applicant who desires to be examined must com-

mence the examination at 10:00 A. M. the first day of the examination.

To be eligible to this examination the applicant must make application on the forms prescribed by the Board at least three days before the date, present a diploma from a medical college in good standing, and pay the examination fee of ten dollars. The application must be sent to the Secretary of the Board at Springfield. The diploma can be sent with the application or presented by the applicant in person at 9:00 A. M. May 22.

The Illinois State Board of Health will not consider any medical college in good standing, which graduates, after January 1, 1900, any students (excepting graduates of reputable colleges of arts and sciences, or of reputable colleges of dentistry, pharmacy or veterinary medicine, to whom one year's advanced standing may be granted) on less than four full courses of lectures of at least six months each, in four separate years.

No medical college issuing a catalogue or announcement in which are contained misrepresentations respecting its teaching, clinical and hospital facilities, its faculty or its courses of study, or false representations as to the number of students matriculated or in attendance, will be regarded in good standing.

The filing of an application or the taking of an examination does not entitle the applicant to practice medicine. The only legal right to practice is the possession of a Certificate from the State Board of Health. Notify the Secretary at once of any change of address. By order of the Board.

J. A. Egan, Sec'y.

NOTICE.

At the forthcoming meeting Section 11 will present a symposium on Obstetrics as follows:

Subject, The Pathology of Delivery.

Address, Dr. J. Clarence Webster, Chicago.

"The Application of the Forceps," by Dr. J. A. Allaben, Rockford.

"The Technique of Version," by Dr. J. F. Percy, Galesburg.

"The Management of Impacted Cases," by Dr. Henry F. Lewis, Chicago.

"The Mutilating Operations," by Dr. C. S. Bacon, Chicago.

"Symphysiotomy," by Dr. George N. Kreider, Springfield.

"Cæsarean Section and Porro Operation," by Dr. C. B. Reed, Chicago.

The discussion will be opened by Drs. J. B. DeLee, O. B. Will, E. P. Cook and Effie L. Lobdell.

In Section 1 Dr. John H. Hollister, Chicago, will read a paper on "California as a Health Resort," under his own observation during the last six months.

Dr. T. J. McAnally, Carbondale, will read a paper on "Is Pneumonia Contagious?"

Dr. H. C. Mitchell will read a paper on "Have We Got the Smallpox?"

Dr. Frank Norbury, Jacksonville, will read a paper entitled, "Diagnosis of Tumors of the Spinal Cord and Its Membranes."

Dr. E. M. Sutton, Peoria, will read a paper on "The Treatment of Appendicitis by Perineal Incision in Males and Vaginal Incision in Females."

The discussion will be opened by Dr. E. J. Senn and Dr. A. I. Bouffler.

Dr. D. W. Aldrich, Galesburg, will present a paper on some surgical topic, the title not yet announced.

Dr. Emil Ries, Chicago, will speak on "Sterility in Women."

The discussion will be opened by Dr. F. Henrotin.

Dr. H. W. Chapman, Whitehall, will read a paper on "Surgical Introspection."

Dr. A. L. Adams, Jacksonville, will report cases of "Sympathetic Ophthalmia."

Dr. Josephine Milligan, Jacksonville, will read a gynecological paper, the title to be announced later.

Dr. John Ridlon, Chicago, will speak on "Congenital Dislocation of the Hip."

Dr. E. H. Lee, Chicago, will read a paper on "The Ambulatory Treatment of Fractures."

The discussion will be opened by Dr. C. C. Hunt, Aurora.

Items.

DEATH UNDER "CHRISTIAN SCIENCE."—

Another case has been added to the already not inconsiderable list of deaths that have been attributed to parental ignorance or blindness and "christian science" treatment. The victim this time was the 13-year-old daughter and only child of a real estate dealer living in Jersey City, N. J. The child was ill with typhoid fever, and for a time was attended by two physicians and two trained nurses, but when the physicians refused to say positively that they could cure the child, the parents were persuaded to call to their aid some members of the First Church of Christ. These people proceeded to stop all medicines, and all food except what the child would take voluntarily, and spent their time in sitting in the back parlor, "treating the child through the mother." Finally the nurses thought they detected faint signs of improvement, and besought the mother to recall the physicians. The mother consulted her "christian science" friends, with the result that the nurses were rebuked for having bothered the mother. After having lain for five days without nourishment or medicine, the little one died, and the physicians formerly in attendance very properly refused to make out a death certificate. The case was brought to the notice of Health Inspector Benjamin, who decided that the City Board of Health had no jurisdiction, but thought the matter might be reviewed by the county board.

FORTY YEARS A BERLIN ALDERMAN.—

It is worthy the attention of people who sometimes complain of their aldermen, that Berlin, even under so dictatorial an emperor as William II., is able to secure as members of its city assembly some of the most eminent among its citizens. The mayor of Berlin and the city councilors have just celebrated the fortieth anniversary of Rudolph Virchow's connection with the assembly by presenting him with an engrossed address of thanks and congratu-

lation. Rudolph Virchow has been an active politician for nearly half a century. In addition, he is probably the most famous pathologist on the continent, and has served for years as rector of the University of Berlin. His recent address before the Berlin Tuberculosis Congress was regarded as one of the most important papers read before that body. Dr. Virchow is nearly 80 years old, and is still active and eminent in many lines of work.

Letters each with enclosure have been received from:

B. J. Downey, Ottawa.
 A. M. Beal, Moline.
 S. C. Stremmel, Macomb.
 M. R. Bailey, Elliott.
 N. B. Hoornbeek, Youngstown.
 C. F. Wilhelmj, East St. Louis.
 A. E. Halstead, Chicago.
 J. W. Hensley, Peoria.
 John H. Byrne, Chicago.
 A. N. Mackey, Aledo.
 W. S. Jones, Redmon.
 E. A. Edlen, Moline.
 Marie J. Mergler, Chicago.
 E. J. Mellish, Chicago.
 A. L. Warner, Chicago.
 C. H. Starkel, Belleville.
 E. A. Bleuler, Carlinville.
 Waldo Fisher, Alton.
 C. Martin Wood, Decatur.
 John Leeming, Chicago.
 J. M. Cody, Fremont.
 E. E. Rice, Allison.
 W. E. Dixon, Sidell.
 Frank Allport, Chicago.
 Sidney Kuh, Chicago.
 J. L. Taylor, Libertyville.
 S. R. Catlin, Rockford.
 C. O. Burke, Atlanta.
 M. R. Weidner, Dolton.
 C. V. Starke, Rockford.
 S. J. Walker, Chicago.
 T. A. Woodruff, Chicago.
 W. C. Wood, Decatur.

Marriages, Deaths, Change of Address

MARRIAGES.

- Dr. J. H. Diddle, of Greenfield, and Miss Emma Batty, of Jacksonville, March 8.
 Dr. Samuel Gordon MacCracken, of Chicago, and Miss Edith Bolte, of Winnetka, March 15
 Dr. Nathan Schrayner and Miss Annie Isador, of Chicago, March 22.
 Dr. Jos. C. Beck and Miss Adele Stein, of Chicago, March 26.

DEATHS.

- Allen, Horace R., at Chicago, in February.
 Armstrong, Lewis, of Taylorville, at El Paso, Texas, March 19.
 Corgan, Lafayette, at Woodburn, Jan. 23.
 Duncan, Wm. W., at Louisville, Feb. 1.
 Emerson, E. B., at Stokes, March 18.
 Green, DeWitt C., at North Alabama, Tenn., Feb. 14.
 Gore, Joel R., at Chicago, Feb. 25.
 Guilbert, E. A., at Dubuque, Ia., March 4.
 Herold, Theodore, at Elgin, Jan. 31.
 Holmes, Edward L., at Chicago, Feb. 11.
 Hufty, Newton L., at Delavan, Feb. 28.
 Jones, Emery, at Virden, March 21.
 Keeley, Leslie E., of Dwight, at Los Angeles, Cal., Feb. 21.
 Kingston, T. A., at Jerseyville.
 Lincoln, Samuel W., at Moline, Feb. 7.
 McCann, Francis P.
 McCann, Wm. G., at Marshall, Feb. 23.
 Moore, Edw. G.
 Primm, T. W., at Lincoln, Feb. 20.
 Stafford, W. W., at Denver, Col., Jan. 9.
 Sangree, Ernest B., of Chicago, at Harrisburg, Pa., Feb. 21.
 Scott, Crafton P., at Lincoln.
 Shirley, Elijah S., at Xenia, Feb. 21.
 Smead, Robt., at Altona, Feb. 18.
 Stanley, Frank A., at Chicago, Jan. 16.
 Stokes, John M., at Sumner, Feb. 10.
 Strong, Albert B., at Kankakee, March 16.
 Tanner, Eli J. at Chicago, Feb. 18.
 Talbott, C. W., at Lockport.
 Wetherell, Geo. F., at Chicago, March 20.
 Whidden, Phylon C., at Chicago, March 8.

CHANGES OF ADDRESS.

CHANGES IN CHICAGO.

- Andrews, E. Wyllys, 65 Randolph st. to 100 State st.
 Andrews, Edmund, 65 Randolph st. to 100 State st.
 Andrews, Frank T., 65 Randolph st. to 100 State st.
 Barker E. S., 718 S. Halsted st. to 245 La Salle ave.
 Butler, Geo. F., 794 Adams st. to 103 State st.
 Butler, W. J., 1361 to 1485 Jackson Boul.
 Cotton, A. C., 677 to 1485 Jackson Boul.
 Gatchell, H. P., 162 30th st. to 3138 Forest ave.
 Grace, R., Windemere Hotel to 750 Grace st.
 Henderson, Jas. T., 31 Washington st. to 84 Adams st.

- Hillebrand, H. J., 797 W. Wrightwood ave. to 863 Armitage ave.
 Howard, Wm. A., 5 Blue Island ave., to New Era Bldg.
 Jackson, Chas. E., 5759 Drexel ave. to 5516 Jefferson ave.
 Kleene, Frederick, 318 Milwaukee ave. to cor. Milwaukee ave. and Division st.
 Klein, Henry, German Hospital to 791 S. Halsted st.
 Lane, Myron E., 355 Webster ave. to 350 North ave.
 Leigh, Leon K., 267 to 246 Milwaukee ave.
 Lewis, Henry F., 4425 Lake ave to 103 State st.
 Lifchitz, A. H., 11118 Michigan ave. to 247 S. Morgan st.
 Lydston, G. Frank, remains at 100 State st.
 Marks, Henry M., 385 Washington Boul. to 164 42nd Place.
 Morf, Paul F., Cook County Hospital to 417 La-Salle ave.
 Oschner, B. J., 681 Madison st. to Cook County Hospital.
 Sanborn, F. C., Palmer House to 102 N. Clark st.
 Schock, L. E., 1307 W. Madison st. to 79 S. Sacramento ave.
 Strawn, Julia C., 4126 Lake ave. to 201 44th st.
 Teschan, R. F., 746 Jackson Boul. to 715 W. Harrison st.
 Turner, J. H., 531 W. Adams st. to 819 W. Harrison st.
 Van Derslice, Jas. W., Venetian Bldg. to Medinah Temple.
 Voight, C. B., Cook County Hospital to Detention Hospital.
 Von Kotsch, R. H., 3336 Vincennes ave. to 3332 Rhoades ave.
 Wallace, T. A., 6658 Wentworth ave. to 170 E. 79th st.
 Wallace, F. J., Chicago Homeopathic Hospital to 6500 Wentworth ave.

CHANGES FROM CHICAGO.

- Aby, Frank S., to Two Rivers, Wis.
 Adams, H. C., to Hospital.
 Boisvert, C. E., to Quebec, Can.
 Corbus, Howard, to Hospital.
 Glidden, W. C., to DeKalb.
 Hall, Florence G., to Virginia, Ill.
 Harrison Matthew W., to Collinsville.
 Hawley, A. W., to Hospital.
 Hektoen, Martin, to Hospital.
 Palmer, Violet H., to Hospital.
 Prince, L. H., to Palmyra, Wis.
 Replogle, Benj. F., to Oregon, Ill.
 Sanborn, Jos. H., to Breese.
 Sullivan, E. P., to Malvern.
 Winchell, Marie, to Lincoln.
 Winget, S. E., to Kewanee.
 Zimmermann, H. S., to Chicago Heights.

CHANGES TO CHICAGO.

- Allen, T. J., Aurora to 338 E. 57th st.
 Beveridge, T. F., Bridgewater, S. D., to 4155 Grand Boul.
 Bush, G. C., Milwaukee, Wis., to St. Elizabeth Hospital.
 Fosberg, Geo. E., Cedar Rapids, Ia., to 1532 W. Monroe st.
 Gilbert, Max, Ottawa to 848 N. Halsted st.

Johnson, H. L. E., Washington, D. C., to 1176 Sheridan Road.
 Kreiger, Geo., to 8947 Exchange ave.
 McGuire, J. W., Tonawanda, Pa., to 1140 N. Maplewood ave.
 Piper, E. D., Waukegan to 2116 W. Monroe st.
 Robinson, F. Byron, to 100 State st.
 Schembs, Frank H., to cor. Milwaukee ave. and Division st.
 Sharp, Sarah, to 481 W. Madison st.
 Shryock, A. Q., Battle Creek, Mich., to 28 33rd Place.

CHANGES FROM ILLINOIS.

Bahrenberg, J. E., Edwardsville to St. Louis, Mo.
 Brown, Henry B., Lincoln to DeLand, Fla.
 Cunningham, J. G., Lockport to ———.
 Curtis, Rozel M., Union to Baltimore, Md.
 Davis, Elias, Nilwood to ———.
 Gapen, Clarke, Chicago to Madison, Wis.
 Hayes, David D., Bunker Hill to Penn.
 Hosier, J. W., Hollowayville to ———.
 Hunter, Henry C., Polo to Hampton, Ia.
 Jackson, Geo., Cary Station to ———.
 Lockwood, E. K., Virden to Colorado.
 McGinnis, Geo. H., Lemoille to ———.
 McGuire, John, Richmond to ———.
 Newell, Geo. E., Hebron to ———.
 O'Leary, G. M., to Huntington, Ind.
 Piper, H. W., to Courtenay, N. D.
 Proctor, Clark M., Harvard to ———.
 Prouty, H. L., Richmond to ———.
 Robinson, Mary T., Mulberry Grove to St. Louis, Mo.
 Suggett, O. L., Flora to St. Louis, Mo.
 Sweet, Richard, Richmond to ———.
 Thompson, Wm., Cerro Gordo to Kansas City, Mo.
 Webb, Wm. J., Martinton to Kirksville, Mo.

CHANGES TO ILLINOIS.

Allen, Chas. E. to Virden.
 Bair, Edward, to Carmi.
 Bennett, Stephen B., Los Angeles, Cal., to Fairview.
 Brockhausen, B. Erp, Lansing, Ia., to Freeport.
 Brown, Harry M., to Philadelphia.
 Foster, Thomas R., to Hospital.
 Fox, Julius C., to Keysport.
 Gillham, Frank W., to Bunker Hill.
 Hainline, T. C., to Seaton.
 Hirsch, Jos. A., St. Louis, Mo., to Edwardsville.
 Johnston, J., Alba to Byron.
 Kincaid, Wm. R., to Elkhart.
 Lester, Frederick W., David City, Ia., to Aurora.
 Michener, Ava, Marshall, Mich., to Geneva.
 Mitchell, R. S., Vincennes, Ind., to Flora.
 Mozley, C. A., to Brooklyn.
 Nolan, E. C., Iowa to Mt. Pulaski.
 Rigg, J. R., to Mt. Pulaski.
 Rigg, R. Willis, Colorado to Mt. Pulaski.
 Rose, Marie F., St. Joseph, Mich., to Harvey.
 Schroepel, G. H. R., to Collinsville.
 Strickler, Clarence A., to Etna.
 Wilson, R. M., New York City to Lincoln.

CHANGES IN ILLINOIS.

Adles, M., Pinckneyville to DuQuoin.
 Allen, J. Edwin, Dewey to Gibson City.
 Anderson, Martha, remains at Moline.
 Asire, J. L., Paisley to Madison.

Beach, R. E., Brownstown to Vandalia.
 Bechholdt, G. Frederick, Jacksonville to Perry.
 Bechtold, August F., Forest City to Belleville.
 Blackburn, R. S., Breeds to Ray.
 Blanker, Fred, East St. Louis to Rock Island.
 Burton, D. F., Plymouth to Colchester.
 Clark, E. J., to Winnebago.
 Clay, Walter E., Kent to Pearl City.
 Coen, C. M., Mendota to Maroa.
 Conard, A. F., Whiteheath to Homer.
 Day, W. C., Bethel to Winchester.
 Dugan, Richard D., Philadelphia to Pleasant Plains.

Dugan, W. J., Hugo to Kemp.
 Enos, Emmet F., Herscher to Hospital.
 Fitzgibbons, W. E., Utica to Green Valley.
 Gause, Edwin J., Hodges Park to Unity.
 Gose, C. J., Auburn to Glenarm.
 Greer, A. P., Murphysboro to Sandusky.
 Hamilton, Jas. W., Ina to Mt. Vernon.
 Hess, David L., Barnett to Hettick.
 Hudson, Benj., Rock Island to Scottville.
 Hunter, C. W., Victoria to Oneida.
 Hunter, Warren, Hampton to Oneida.
 Johnson, J. O., Money Creek to Hudson.
 Johnston, Wm. W., Jr., Chicago Heights to Cameron.

Kamplain, Jas., Lawrenceville to Russellville.
 Krohn, H. W., Esmond to DeWitt.
 Legier, John T., Soreno to Carmi.
 Lovejoy, W. C., Marseilles to Maywood.
 Lyons, Jos. D., Ashland to Farmersville.
 Lyons, Oliver, Hume to Dana.
 Lyons, Richard C., Wetaug to Cypress.
 Mahon, W. H., to Cooksville.
 Mallory, Chas. A., Oceana to Sterling.
 Matheny, Z. E., Fairland to Parkville.
 McNutt, J. H., Pierson Station to Hammond.
 Mosley, S. H., to Low Point.
 Noble, Chas. M., McLean to Bloomington.
 Pease, A. S., Matteson to Chicago Heights.
 Penniman, Alfred R., Carrollton to Granite.
 Pickels, W. H., Tiskilwa to Coal City.
 Place, Milo R., Auburn to Springfield.
 Poos, Robt. C., Okawville to Nashville.
 Porter, J. G., to Clinton.
 Powell, Calvin B., Cairo to Mound City.
 Putnam, Harrison C., Civer to Mattoon.
 Renie, P. A., Marengo to Union.
 Rummell, A. S., Geneseo to Marquette.
 Sageser, Jos., to Downs.
 Scott, R. C., Oak Park to Austin.
 Scott, Ralph B., Jacksonville to Venice.
 Seem, G. F., Macomb to Basco.
 Snively, Chas. D., Astoria to Summum.
 Soule, Chas. E., Morris to Senaca.
 Soule, F. J., Watertown to German Valley.
 Stewart, Harry J., Viola to Kewanee.
 Taylor, Walter, Farmingdale to Tallula.
 Titterington, M. B., Hardin to Jerseyville.
 Tombaugh, Leon H., Sheridan to Waukegan.
 Trumbauer, J. D. D., Kingston to DeKalb.
 Vaughan, Robt. F., Sailor Springs to Cairo.
 Ward, A. L., Anchor to Milmine.
 Warren, J. A., Beaver Creek to Greenville.
 Williams, A. L. T., Vera to Vandalia.
 Wood, Chas. M., Decatur to Diona.
 Woodside, John S., Evansville to Chester.
 Wright, Emily, remains at Rock Island.

CALENDAR OF MEDICAL SOCIETIES.

City.	President.	Secretary.	Time and Place of Meeting.
Alton Medical Society.....	W. A. Haskell, Alton.....	P. W. Beckman, Alton.....	1st Thursday of each month
Chicago Pediatric Society.....	A. C. Cotton, Chicago.....	F. S. Churchill, Chicago.....	Monthly
Chicago Society of Internal Medicine.....	John A. Robison, Chicago.....	Ed. F. Wells, Chicago.....	1st Friday of every month Oct. to June
Chicago Surgical Society.....	John E. Owens, Chicago.....	A. W. Eisendrath, Chicago.....	Quarterly in connection with Chi. Med. Soc.
Chicago Laryngological Society.....	E. Fletcher Jugsals, Chicago.....	T. Melville Hardth, Chicago.....	Monthly, except July and August
Chicago Orthopedic Society.....	Frederic S. Coolidge, Chicago.....	John L. Porter, Chicago.....	2d Friday of each month
Chicago Academy of Medicine.....	W. L. Baum, Chicago.....	J. G. Kierman, Chicago.....	1st Friday of each month
Chicago Bohemian Medical Society.....	Chas. Stulik, Chicago.....	W. J. Dvorak, Chicago.....	Every Wednesday evening
Chicago Pathological Society.....	Ludwig Hekroten, Chicago.....	Arthur R. Edwards, Chicago.....	2nd Monday of each month
Chicago Gynecological Society.....	Lyman Ware, Chicago.....	George H. Weaver, Chicago.....	3rd Friday of each month
Chicago Ophthalmological Society.....	Richard Dewey, Chicago.....	Wm. H. Rumpf, Chicago.....	2nd Tuesday of each month
Chicago Neurological Society.....	Deuslow Lewis, Chicago.....	Sydney Kuh, Chicago.....	No regular meeting
Chicago Medical Examiners.....	H. A. Hadley, Chicago.....	Wm. L. Baum, Chicago.....	Quarterly
Demonstrator's Association of Chicago.....	Wm. J. Chetoweth, Decatur.....	M. L. Harris, Chicago.....	2nd Monday of each month
Decatur Medical Society.....	C. P. Thompson, Jacksonville.....	W. C. Wood, Decatur.....	Monthly
Jacksonville, Medical Club.....	Jos. Matteson, Chicago.....	H. C. Campbell, Jacksonville.....	Every two weeks
Medical Legal Society of Chicago.....	Carl Wagner, Chicago.....	Wm. S. Baum, Chicago.....	1st Saturday September, March and June
North Chicago Medical Society.....	J. C. Hatheway, Ottawa.....	J. N. A. Pike, Ottawa.....	Monthly
Ottawa City Medical Society.....	O. J. Roskoton, Peoria.....	N. M. Sedgwick, Peoria.....	Monthly
Peoria City Medical Society.....	Geo. A. Torrison, Chicago.....	Wm. H. Wilder, Chicago.....	Monthly
Physician's Club of Chicago.....	Chas. F. Swan, Chicago.....	Thos. Warloe, Chicago.....	3d Thursday of each month
Scandinavian Medical Society of Chicago.....	Gertrude G. Wellington, Chicago.....	John S. Davis, Chicago.....	1st and 3d Tuesday of each month
South Chicago Medical Society.....	H. C. Howard, Champaign.....	Jennie Trish Topinka, Chicago.....	1st Tuesday in each month
The Medical Women's Club of Chicago.....	Chas. A. Nichols, Urbana.....	Jas. H. Finch, Champaign.....	2d and 4th Wednesdays of each month
Twin City (Champaign and Urbana) Clinical Association.....		E. S. Smith, Urbana.....	1st Monday of each month
Urbana Society of Physicians and Surgeons.....			
County.	President.	Secretary.	Time and Place of Meeting.
Adams County Medical Society.....	Frank E. Tull, Quincy.....	W. W. Williams, Quincy.....	Monthly, on 2nd Monday at Quincy
Bureau County Medical Society.....	S. W. Hopkins, Walnut.....	A. E. Owens, Princeton.....	2nd Thursday of Nov. and May
Bond County Medical Society.....	B. F. Coop, Greenville.....	C. C. Gordon, Greenville.....	Meets in September and April
Clay County Medical Society.....	M. M. Gladson, Hard.....	W. E. Burgett, Louisville.....	Quarterly at Louisville
Clinton County Medical Society.....	T. J. McKinney, Carlyle.....	M. Broening, Carlyle.....	May, Aug., Nov., and Feb., at Carlyle
Champaign County Medical Society.....	W. H. Hoskinson, Trimble.....	J. C. Dadds, Toiolo.....	Monthly at Champaign
Crawford County Medical Society.....	D. W. Edmiston, Clinton.....	John Weir, West Union.....	2d Thurs. in July, Sept., Nov., Jan. & May
De Witt County Medical Society.....	B. T. McClain, Atwood.....	John A. Tyler, Clinton.....	2d Tuesday in Jan., April, July and Oct.
Douglas County Medical Society.....	E. W. Regan, Canton.....	W. E. Rice, Tuscola.....	1st Thursday in Feb., May, Aug. and Nov.
Fulton County Medical Society.....	Wm. Roaz, Carthage.....	D. S. Ray, Cuba.....	1st Thursday in May at Carthage
Hancock County Medical Society.....	J. H. Mitchell, Mt. Vernon.....	R. L. Casburn, Carthage.....	
Jefferson County Medical Society.....	Geo. H. Lee, Kankakee.....	A. A. Deardurf, Mt. Vernon.....	
Kankakee County Medical Society.....	L. M. Bergen, Waukegan.....	A. H. Roy, Kankakee.....	1st Thursday of each month
Lake County Medical Society.....	Wm. G. Putney, Seneca.....	A. C. Haven, Lake Forest.....	Annually, 3rd Tuesday in April
LaSalle County Medical Society.....	J. S. Collins, Carlinville.....	E. H. Butterfield, Ottawa.....	3d Tues. in April and Oct. at Carlinville
Macoupin County Medical Society.....	F. B. Sargent, Le Roy.....	E. J. Matthews, Carlinville.....	1st Thursday of each month at Bloomington
McLean County Medical Society.....	H. Ganter, Floraville.....	I. P. Hyndman, Bloomington.....	In March and September at Waterloo
Monroe County Medical Society.....	S. J. Rhodes, Metropolis.....	L. Adelsberger, Waterloo.....	2d Thursday, Metropolis
Mussac County Medical Society.....	W. C. Cole, Jacksonsville.....	Edw. Rowe, Jacksonville.....	2d Tuesday of each month at Jacksonsville
Morgan County Medical Society.....	G. M. McKenney, Oregon.....	H. A. Mix, Oregon.....	1st Wednesday in January and July
Ogle County Medical Society.....			

CALENDAR OF MEDICAL SOCIETIES—Continued.

County.	President.	Secretary.	Time and Place of Meeting.
Physicians' Protective Assn. of Jackson Co.	W. W. Essick, Murphysboro.....	O. B. Ormsby, Murphysboro.....	2d and 4th Saturday of each month
Rock River Valley Medical Association.....	A. G. McBride, Sterling.....	A. L. Miller, Dixon.....	2d week in June and December
St. Clair County Medical Society.....	E. P. Raab, Belleville.....	J. P. Stack, E. St. Louis.....	
Schwytzer County Medical Society.....	J. A. Harvey, Rushville.....	C. W. Ball, Rushville.....	
Saline County Medical Society.....	J. W. Tallman, Harrisburg.....	J. R. Baker, Harrisburg.....	1st Monday in each month.....
Sangamon County Medical Society.....	Geo. N. Kreider, Springfield.....	E. P. Bartlett, Springfield.....	Monthly, on 2d Monday at Springfield
Stephenson County Medical Society.....	J. B. Leitzell, Orangeville.....	J. F. Fair, Freeport.....	Annually
Shelby County Medical Society.....	Wm. J. Eddy, Shelbyville.....	A. G. Mizell, Shelbyville.....	1st Tuesday in June and December
Tri-County Medical Society.....	M. S. Brown, Danville.....	Leroy Jones, Hoopston.....	2nd Friday evening at Danville
Vermilion County Medical Society.....	W. A. Cochran, Danville.....	E. E. Clark, Danville.....	2nd Tuesday of each month
Will County Medical Society.....	G. A. Peck, Mt. Carmel.....	Thos. J. Wagner, Joliet.....	Quarterly
Winnebago County Medical Society.....	T. N. Miller, Rockford.....	G. C. Kingsbury, Mt. Carmel.....	Annually
Winnebago County Medical Society.....	E. J. Blair, Monmouth.....	J. H. Frost, Rockford.....	Semi-Annually
White County Medical Society.....	W. W. Apple, Carmel.....	W. A. Steele, Carmel.....	2d Thursday in Jan., April, July and Oct.
Williamson County Medical Society.....	W. H. Bentley, Marion.....	G. W. Evans, Marion.....	1st Monday of Jan., April, July and Oct.
Woodford County Medical Association.....	C. E. Davis, Peoria.....	Frank Stubblefield, El Paso.....	1st Tuesday in May
District.	President.	Secretary.	Time and Place of Meeting.
Aesculapian Society of the Wabash Valley.....	Z. T. Baum, Paris.....	H. McKenna, Paris.....	Terre Haute, Ind., in May
Bratnard District Medical Society.....	F. M. Coppell, Havana.....	Katherine Miller, Lincoln.....	4th Thursday of Jan., April, July and Oct.
Desplaines Valley Medical Society.....	Grant Houston, Joliet.....	H. M. Beckwith, Joliet.....	3d Thursday in each month
District Medical Society of Central Illinois.....	Moses Haynes, Bingham.....	J. N. Nelms, Taylorville.....	Last Tuesday in April and October
Fox River Valley Medical Association.....	C. L. Smith, Aurora.....	M. M. Robbins, Aurora.....	At Elgin in May and at Aurora in Nov.
Galva District Medical Society.....	W. A. Grove, Galva.....	C. W. Hall, Kewanee.....	Annually, 1st Tuesday in May at Galva
Iowa & Illinois Cent. District Medical Assn.	C. C. Carter, Rock Island.....	G. E. Decker, Davenport, Ia.....	Quarterly
Medical & Surgical Society of Western Ill.	H. W. Smith, Roodhouse.....	H. A. Chapin, Whitehall.....	May 4th at Carrollton
Military Tract Medical Association.....	E. J. Sutton, Canton.....	C. B. Horrell, Galesburg.....	At Kewanee
North Central Illinois Medical Association.....	F. M. Burke, LaSalle.....	Geo. A. Dicuss, Streator.....	Annually, 1st Tuesday in December
Southern Illinois Medical Association.....	J. O. DeCoursey, St. Louis.....	C. G. Raynall, Belleville.....	Semi-annually

ILLINOIS Medical Journal

The Official Organ
of the
State Medical Society



A Monthly Bulletin
Edited by the
Publication Committee

Printed by
THE ILLINOIS STATE JOURNAL COMPANY.

Entered in the Springfield Postoffice as Second-Class Matter.

Volume XLIX.
New Series, Vol. I.
Number 11.

Springfield, Ill., May, 1900.

{ Subscription, \$3 a Year.
Single Copies, 25 Cents.

SIXTEEN EXTRA PAGES IN THIS ISSUE.

TABLE OF CONTENTS.

ORIGINAL ARTICLES.

Disease of the Pancreas—Franklin E. Wallace, M. D., Monmouth.....	515
The Alkalinity of the Blood in its Physiologic and Pathologic Relations—J. H. Salisbury, A. M., M. D., Chicago.....	518
Injuries of the Scalp—H. C. Fairbrother, M. D., E. St. Louis.....	526
Intestinal Auto-Infection—G. J. Rivard, M. D., Assumption.....	529
Influence of Mind on Body—J. E. Sutton, M. D., Canton.....	533
The Spanish-American War as seen by the Military Surgeon—Geo. E. Hilgard, M. D., Belleville.....	538
History of Our Medical Laws—A. C. Corr, M. D., Carlinville.....	542
The Relation of Our Laws to Medical Education and Practice—E. M. Eckard, M. D., Peoria.....	545
Efficiency of Our Health Laws—S. T. Hurst, M. D., Greenview.....	549
Efficiency of Our Health Laws—H. W. Chapman, M. D., Whitehall.....	550

EDITORIALS.

Notice.....	554
Organization.....	554
Come.....	554
Program of Annual Meeting.....	555-561

COUNTY AND DISTRICT SOCIETIES.

Chicago Pediatric Society.....	562
Decatur Medical Society.....	562
McLean County Medical Society.....	562
Peoria City Medical Society.....	562
Association of Military Surgeons of the State of Illinois.....	563
Physicians Protective Association, Jackson County.....	564
Adams County Medical Society.....	564
Sangamon County Medical Society.....	565
Pike County Medical Society.....	567
Macoupin County Medical Society.....	567
Morgan County Medical Society.....	568

STATE BOARD OF HEALTH ITEMS.

Disinfection with Formaldehyde.....	571
Small Pox in Illinois.....	572
Investigation of the Water Supplies of Illinois.....	573

State Items.....	573
Marriages, Deaths, Changes of Address.....	574
Calendar of Medical Societies.....	575-576

1850--SPRINGFIELD, ILLINOIS--1900.

We extend you a most cordial invitation to be present at the Fiftieth Annual Meeting of the Illinois State Medical Society to be held in Springfield, May 15, 16 and 17th, in the Christian Church. This will be the Jubilee Meeting and the opening of a new era of Medical History in Illinois.

Fraternally,

E. P. Bartlett,
J. N. Dixon,
O. B. Babcock,
C. M. Bowcock,
B. B. Griffith,

Committee of Arrangements.

The Illinois Medical Journal.

The Official Organ of The Illinois State Medical Society.

VOL. XLIX.
New Series, Vol. I. }
No. 11.

Springfield, Ill., May, 1900.

{ SUBSCRIPTION
\$3.00 A YEAR.

DISEASE OF THE PANCREAS.*

BY FRANKLIN E. WALLACE, M. D., MONMOUTH.
Ex-Interne St. Elizabeth Hospital, Chicago.

The infrequency with which post-mortem examinations are made, probably accounts for the apparent rarity of diseases of the pancreas. This organ belongs to the important system of secreting glands and I feel that their relationship to the human economy is but imperfectly known. We know that there is a bond of some extent, between these glands, through the sympathetic nervous system and the lymphatics, but is there not some bond existing which has control over the power, whereby one gland assumes a function laid down by another? Does such a power exist in the human organism, or is the function once destroyed, lost forever? Does the organism adjust itself to the loss of an organ through other organs, or does it live without this function being restored? There seems to be a close relationship between the pancreas and the central nervous system also, for microscopical examinations of the tissues of the pons, medulla and the cerebrum in some cases of pancreatic disease, shows colloid degeneration. "In diagnosing affections of the pancreas, special stress should be laid upon incomplete digestion of fat and starches and the existence of diabetes and fatty stools, and for this reason the feces and urine are to be carefully examined. The urine also contains fat in some cases."¹ It is, therefore, essential to make a very careful examination of the feces and urine, in those cases in which we are undecided, as to diagnosis of pancreatic diseases.

Cyst. Cystic degeneration seems to be the most common disease of the pancreas. I take it, one reason for this, is because of

the more conspicuous signs and symptoms present, making an early diagnosis of this condition easier, while the other cases go unrecognized. The history of a case sometimes gives us an insight into the diagnosis, for in the majority of cases of cyst, injury is given as the cause. In the reaction following an injury to any tissue there is always swelling and congestion in the parts injured. Following contusion of the pancreas therefore, we would expect these effects to follow and we have the essential conditions present for a cystic formation, viz, a closure of the duct, with retention of the secretions. The injury may be severe enough to set up permanent changes and through cicatricial contracture we get partial or total closure of the duct and the cyst becomes evident, by an increasing sized tumor. Cancer, calculi and abscess may all act as obstructions.

The diagnosis of cyst is not always an easy matter, and the statement is made that it has been correctly made in a minority of cases. The lack of all symptoms of local or general inflammation, its fluctuating character and its position, in the region of the pancreas, behind the stomach, are its chief diagnostic points. Some very high authorities advocate tapping through the abdominal wall with an exploratory needle, the contents withdrawn and examined, chemically and microscopically. The question naturally arises, is this a safe procedure? Being a retroperitoneal organ and lying as it does, behind the colon and stomach, a surgeon certainly adds danger to an already dangerous condition, for he runs a risk of puncturing either of these overlying organs, and is very apt to infect the peritoneum. Cyst of the pancreas must be diagnosed from ovarian cyst, hydrops of the gall bladder, hydro-nephrosis, hemorrhagic effusion, etc. I cannot take the time in this paper, to give the points of differential diag-

*Read before the Illinois State Medical Society, at Cairo, May 18, 1899.

nosis, nor to even mention all of the diseases of the pancreas, but I call your attention to the inflation of the colon as a valuable procedure in arriving at a diagnosis. "This is done by means of air, hydrogen or carbonic acid gas. In tumors of the pancreas, kidneys, and spleen, or in aneurisms, the inflated colon comes between them and the abdominal wall." "Tumors of the ovaries and the uterus enlarge from below upward, push the intestines to one side and are not covered with them."²

In summing up this disease the following conclusions have been arrived at: "1st, That contusions of the upper part of the abdomen may be followed by the development of a tumor in the epigastric, umbilical and left hypochondriac region. 2d, That such tumors may be due to fluid accumulations in the lesser peritoneal cavity. 3d, That when the contents of such tumors are found to have the property of rapidly converting starch into sugar, we may assume that the pancreas has been injured. 4th, That many such tumors have been regarded as true retention cysts of the pancreas and that this opinion has been formed upon insufficient evidence."³

Hemorrhage. Hemorrhages are divided into three classes. The most common form is passive hemorrhage, as a result of diseases of the heart, lungs or liver. The second class are those rare cases resulting from rupture of a large blood vessel, due to some change in the vessel walls.

The third class constitutes those cases in which the whole organ becomes hemorrhagic, the blood infiltrating the interstitial tissues, after which, disintegration of the whole organ occurs. "The first form of hemorrhage is unattended by special symptoms. In the second, a pulsating tumor may suddenly appear in the epigastrium and the ordinary indications of hemorrhage, —vomiting, fainting fits, cold extremities, feeble pulse, and general exhaustion,—are present. Death may occur suddenly or the patient may linger for months. In the third condition death usually occurs very suddenly, probably from pressure upon the

sympathetic ganglia. There are no symptoms and the rapid termination prevents the development of general peritonitis, which would otherwise occur from the sloughing of the peritoneum. There are no indications for treatment."⁴

Acute Suppuration. Next to acute hemorrhage, the most rapidly fatal disease of this organ is acute suppuration. Pain may be sudden and severe, nausea and vomiting as a rule persistent, fecal vomiting occurs in a large number of cases, tenderness more or less constant, great prostration, pulse rapid and weak, temperature may be normal, subnormal or but slightly elevated, constipation and tympany generally present, tumor rare, jaundice may or may not develop. The septic infection arises through traumatism, ulcers of the intestines, stomach, or bile tract, from peripancratic abscesses, or it may take place primarily, through the blood or lymph channels. In exceptionally rare cases it runs into a chronic condition. Nature is very kind and may protect herself, if she has time enough, to build up a wall. The offending material may be discharged through the bowel or stomach and recovery take place. In most cases the microbic invasion is so rapid that nature is overpowered and death is the result. In other cases, abscesses have formed in the lumbar region and recovery brought about by simple incision and drainage. This condition must be diagnosed from intestinal obstruction, abscess of the liver, gangrenous cholecystitis, empyema of gall bladder, perforative ulcer of stomach or bowel. The following case which came under my observation while on the house staff of St. Elizabeth Hospital, Chicago, serves as a type of this disease. It has already been placed on record, as I presented the history of the case and showed a specimen of the omentum, presenting fat necrosis, before the Chicago Pathological Society in 1896.

Case History. Mrs. F., aged 26, Irish, housewife, was admitted to St. Elizabeth Hospital October 26th, 1896, as a private patient. Family history negative, mother

of two children, one miscarriage, has always been well up to two years ago when she had pain in epigastrium, with slight icterus, made good recovery. Since that time has had three or four such attacks. Her present history is of five weeks standing. Was taken with pain in region of gall bladder, nausea, vomiting and fever. These symptoms continued more or less severely for three weeks and then gradually abated under treatment. For the next ten days was considerably better, but five days ago was taken with the former symptoms. She was admitted to the hospital for an operation, a probable diagnosis of gall stones having been made. On admittance her condition was found as follows: Able to walk, restless, face flushed, hurried respiration, pulse 114, temperature 100.4, pain in epigastrium, nausea and vomiting, tongue slightly coated, tenderness over abdomen, rapid heart action and pulsations strong, constipated and urine scant. Liver, lungs and spleen normal. Urinalysis showed biliary coloring matter and 1/5 by bulk, of albumin. Postponement of the operation was advised by her physician. Medicines to relieve her incessant vomiting were in vain, and anything taken into the stomach was immediately rejected. Her condition remained about the same for next two days. The urine became more scant and enemas did not relieve the bowels. October 28th. Voided but 16 ounces of urine the past 24 hours, more restless and anxious looking, seems weaker, slight fecal movement, vomiting still continuous. Temperature same as on admittance. October 29th. Heart weaker, fecal vomiting, previous symptoms unabating, semi-delirious and extremely restless. At 7 P. M. passed into coma and died at 11 P. M.

Post Mortem. The autopsy was held by Dr. E. R. Lecount, attending pathologist, assisted by the writer, and it showed an intensely interesting state of affairs. A brief synopsis of the postmortem findings, is as follows. The heart and lungs were normal to a casual examination, the spleen was small, the gall bladder small and contracted

from connective tissue bands in the walls, gall stones were numerous, acute parenchymatous nephritis was found in both kidneys, body and tail of the pancreas consisted of simply shreds of necrotic tissue, extending across and lying free in a cavity, possessing for walls, the stomach, retroperitoneal, and peri-renal adipose tissue, the transverse mesentery, duodenum, and tissue of lesser omental cavity, as well as some loops of small intestines and colon. The walls of this cavity were necrotic, dark grey and slaty in color. The cavity communicated with the stomach and bowels through perforations, and contained fecal matter. The head of the pancreas was the least involved. We found disseminated fat necrosis throughout the omentum, mesentery and fatty tissue. This necrosis of Balsar may be found in the interlobular pancreatic tissue and in the abdominal fatty tissue generally. It consists of small, opaque, yellowish white spots, from pin head size to that of a split pea, distributed more or less thickly throughout the tissues involved. In this case these areas could be plainly seen in the omentum, when held up to the light. I examined the contents of these areas under the microscope and fat crystals were easily visible.

Cancer. Primary cancer of this organ is a most insidious disease, developing gradually and without much pain. Patients are usually past middle life. Temperature is generally subnormal, may later in the disease have a tumor, and like cancer of any part of the body, may have cachexia and emaciation. It is accompanied by various digestive disturbances, liver small and hard, jaundice sets in gradually and once present it never disappears. With the accumulation of bile in the gall bladder, a tumor can oftentimes be made out and might lead one to a diagnosis of cholelithiasis, therefore, I should say, if we have a case presenting jaundice, with or without pain or a tumor, in a person past middle life, and it cannot be relieved by active medication in a few days, operate. One diagnostic point is, that cancer of the pancreas nearly al-

ways produces jaundice because of the frequency with which the head is involved, while cancer of the liver rarely does, for its growth generally occurs in parts of the liver distant from the gall duct.

Surgery. It is only within the past few years that any systematic effort at investigating the surgery of this organ has been attempted. Billroth, Kocher, Gould and others have placed cases of interest on record, but a great deal of the honor of placing surgery of the pancreas upon a solid footing belongs to Senn. He has made extensive experimental investigations, has collected illustrative cases and placed them on record. Although the results of laparotomy, so far have not been encouraging, I think it apparent that only through an early diagnosis and operative procedure can we hope to decrease the big percentage of mortality from diseases of this organ. Several cases are on record in which the pancreas has been removed entire and its function apparently taken up by other organs, however in some cases, more or less imperfectly, for glycosuria has been noted. There are some authors who claim that total extirpation of the pancreas is invariably followed by diabetes and there probably are an equal number who deny this, but it is true nevertheless, that in a majority of cases this operation is followed by glycosuria. Complete removal may easily prove fatal, so it should be avoided if possible. I advocate an exploratory incision and after a thorough investigation, a decision can be reached as to the best method of procedure. With our advanced knowledge of antiseptics and improved methods of operating we certainly are justifiable in making an exploratory incision for diagnosis. If an obstruction should be present from gallstones, stricture and the like, we are in a position to remedy it. If found to be cancer an operation may be indicated, depending on the involvement. Should our examination reveal a cyst or abscess without involvement of the peritoneum, then a posterior incision below the twelfth rib should be made, the tumor pushed backward, incised and drained and the anterior incision closed. I

favor this route, because, 1st, It permits of better drainage; 2d, We run no risk of infecting the peritoneal cavity with the tumor contents; 3d, "The permanent adhesions of the left end of the pancreas to the abdominal wall, in this situation, is less likely to lead to subsequent mischief than is an anterior adhesion between the stomach and transverse colon."⁵

The cure of cancer of the breast by the administration of thyreoid extract is reported and we know of the favorable results in other diseases from its use. We know, also, of favorable results from the administration of extracts and secretions of other glands. If, as I have suggested, there is a peculiar relationship existing between all glands, is it unreasonable to expect that in diseases of the pancreas or other glands, we might not have a beneficial effect, by giving the combined extract or secretions from all the glands?

1. Tillman's Surgery, 1898 edition.
2. Ziemssen Cyclopedia.
3. Osler, "Diagnosis of Abdominal Tumors."
4. Pepper, "System of Medicine."
5. Robson, Medical Annual, 1892.

THE ALKALINITY OF THE BLOOD IN ITS PHYSIOLOGIC AND PATHOLOGIC RELATIONS.*

BY J. H. SALISBURY, A. M., M. D.

Assistant Professor of Medicine and Chemistry, Rush Medical College, Chicago.

The reaction of the blood has been the subject of much investigation by physiologists, and has lately attracted the attention of pathologists as serving, perhaps, to explain some of the phenomena of disease. Especially has the idea been advanced that the alkaline reaction of the blood is closely connected with the means by which the system defends itself against infection by micro-organisms.

No originality of research is claimed for the present paper which simply aims to put before its readers the results so far achieved by investigators, and to draw some practical conclusions from them.

*Read by title at the Cairo Meeting, May, 1899.

Although physicians occasionally speak of the blood becoming acid, it is the universal result of experiment that the blood reacts continuously alkaline to litmus in health and in all cases of disease investigated, except cholera and diabetic coma.

It must be remembered, however, that while the reaction to litmus is alkaline, it contains salts which are of acid constitution, such as the bicarbonates and mono-hydrogen phosphates so that its chemical effect may be that of an acid. The blood has, therefore, a power to absorb bases as well as acids and this power is sometimes spoken of as its acidity. This may be of great importance in accounting for the solution of substances otherwise insoluble; such as the calcium phosphates of bones in cases of rickets and osteomalacia and in making possible the separation of acid secretions like the gastric juice and urine from an alkaline fluid.

The reaction of the blood is measured by the quantity of sodium hydroxid which will be neutralized by 100 c. c. of the blood serum.

The average amount may be stated at 0.300 gm. Na. OH. for 100 c. c. of the blood serum. (Strauss¹.)

We will not enter here into a description of the methods used by various investigators, but will call attention to the difference in results obtained by those who examined the colored blood when first drawn, and those of others who break up the corpuscles by the use of the centrifuge and then determine the alkalinity of the clear serum. Blood treated in the latter manner is said to be laked. The earlier observers determining the alkalinity of the blood when first drawn, found a comparatively low average. Thus the following may be cited:

Lepine² 0.203; Conrad³ 0.276; Krauss⁴ 0.226; Rumpff⁵ 0.182 to 0.218; Von Limbeck⁶ 0.218; Von Jaksch⁷ 0.260 to 0.300.

By using laked blood, Berend⁸ found 0.450; Lowy⁹ 0.497; Strauss .300 to .350. Strauss concludes that a variation of 0.075 is within normal limits.

The earlier observers found a marked re-

duction of alkalinity on standing but the later observers have not found this to be the case. Berend found that the alkaline reaction is likely to return after the blood has stood some time, because the alkali present in the corpuscles is only slowly given up by them. There is also reason to believe that the acid used in titration may break up certain organic compounds present in the blood, separating and combining with the alkali. Thus a portion of the alkali estimated may proceed from compounds which would not be properly reckoned as alkaline in their action in the system.

Whether we should understand by the degree of alkalinity, the amount of acid that can be neutralized by the serum without the corpuscles, or whether the latter should be included seems to be an important question. As far as clinical relations are concerned, we cannot suppose that the alkali present in the corpuscles is capable of exerting the influence which we are inclined to attribute to the alkali of the blood. The corpuscles do not pass outside of the blood vessels, and their alkaline reaction can have little influence upon the tissues. It seems, therefore, that the factor of the alkalinity due to the composition of the corpuscles should be excluded from consideration and looked upon merely as potential alkalinity. If we make this reservation, we may, perhaps, accept the figure given by Schafer¹⁰ as expressing the average alkalinity of human blood, viz., 0.200. Observations upon other animals have given about the same figures, and have shown that the blood of carnivora is slightly more alkaline than that of herbivora. Lassar¹¹ found in French rabbits .212, in cats .241. Some authors make a distinction between the diffusible alkali found in the serum and the non-diffusible present in the corpuscles. The capacity for bases is greatest in the serum, and that for acids in the corpuscles. (Spiro.)

According to the investigations of Strauss, there are no marked variations in the same individual either from the time of day, or from day to day. Digestion seems

to have no particular influence. Other observers using older methods have found different results. Jeffries¹² found a rise from morning till dinner time and after dinner a fall. Dronin¹³, Conrad, Baldi, Sticker and Hubner hold that the alkalinity of the blood is increased at the height of digestion. Schafer states that it increases during digestion.

It is diminished during muscular work upon a diet deficient in proteids, but when the diet is rich in proteids the influence of work is not manifest.

Burchhardt and Minkowski¹⁴ found in rabbits after tetanizing, as by strychnine poisoning, a marked reduction of the CO₂ of the blood. Cohnstein¹⁵ confirmed this for rabbits but he found in dogs a regulating mechanism that prevented an excessive reduction of blood-alkalinity. By the administration of food containing little nitrogen he found that the alkalinity of the dog's blood could be reduced by muscular work to a certain degree. But the organism of the dog was able to resist farther influence of work and maintain its blood at this minimum degree of alkalinity. Cohnstein found what Dronin had previously noticed; that in these cases the reaction of the serum of the blood was greatly lowered while the action of the whole blood remained about the same as in a state of rest.

The cause of the blood alkalinity is twofold: Inorganic alkali and organic alkaline substances, derived from proteids. The inorganic alkali is the carbonate and bicarbonate of potassium and sodium, and the di-sodium-hydrogen phosphate. The bicarbonates and the phosphates while alkaline to litmus, are neutral to other indicators such as phenol-phthallein. The bicarbonate loses much of its carbon dioxide in passing through the lungs and thus undergoes a partial conversion into carbonate. As a result of this change, arterial blood is more alkaline than the venous blood. That part of the alkalinity of the blood is due to the presence of an organic substance of alkaline reaction is shown by the fact that in some instances the alkalinity is higher than can be accounted for by the total

quantity of bases found in the ash. A portion of these bases is undoubtedly present in the blood in the form of neutral salts, so that a considerable portion of the alkalinity must be due to organic substances. That these substances are derived from proteids is probable from the fact that organic alkalies are nitrogenous in character and must be derived from nitrogenous food. It is further shown by the fact that a diet rich in proteids prevents the diminution of the alkalinity of the blood by excessive muscular exertion. What these substances are, is at present unknown.

This organic alkali appears to be largely contained in the corpuscles. By saturating the blood with carbon dioxide, this alkali can be withdrawn from the corpuscles so that they become less alkaline while the serum becomes more alkaline. Probably other influences can change the relation of the corpuscles and serum.

The alkaline reaction of the human blood is maintained in spite of the constant entrance into the blood of acids, either taken as food or generated by fermentation in the intestines or produced as the result of the metabolism in the various tissues.

Acids or substances acid in reaction, form a large part of the diet of the human race. In addition to this we have a frequent source of acid in the fermentations that occur during the digestion of starchy and saccharine food. Acids are also constantly formed by the oxidation of food more particularly the carbonhydrates. The action of the muscles produces carbonic and lactic acids. All these acids on entering the blood tend to reduce its alkalinity and if this tendency were not counteracted the reaction of the blood would soon become neutral or even acid. The mechanism by which the reaction of the blood is regulated and its alkalinity maintained is of the greatest interest and practical importance to the physician.

Three tissues assist in the removal of acid from the blood, viz: the skin, the lungs, and the kidneys. Of these the kidneys are by far the most important as a regulating mechanism.

The reaction of the perspiration is constantly acid and by it a considerable amount of acid is removed from the blood. The lungs also give off carbon dioxid which is produced by the oxidation of substances having a more pronounced acid reaction and therefore respiration serves to remove a certain amount of acid from the blood. The kidneys, however, constitute the most sensitive part of the mechanism for regulating the reaction of the blood. The reaction of the urine responds rapidly to the influence of acids either ingested or formed within the organism. The ingestion of acid is followed in a short time by the secretion of a more acid urine while the ingestion of alkali is followed in from half an hour to two hours by the excretion of less acid or alkaline urine.

This compensation is mainly secured by the excretion of acid sodium phosphate, which is produced by a reaction between sodium bicarbonate and disodium hydrogen phosphate, which results in the passage of the acid phosphate into the urine and the retention of the more alkaline sodium carbonate in the blood. This reaction results in the removal of both sodium and phosphoric acid from the system, and, unless a source of supply is provided, may lead to serious impoverishment of the blood. That the administration of acids leads to the removal of alkali from the system has been shown by Salkowski¹⁶. This is marked in the herbivora but occurs to a less extent in the carnivora. This is largely due to the fact that herbivora find in their food an abundant source of alkaline salts. Acids entering the system may also be neutralized by ammonia derived from proteid food and excreted as ammonium salts. This method of regulation comes into use more particularly in pathologic conditions, as in fevers and is more efficient in the carnivora than in the herbivora.

Herbivorous animals show a greater variability in the degree of alkalinity of the blood than the carnivora. This is due to the fact that the carnivora are able to guard against the effect of the introduction of acids by combining them with ammonia,

which they derive from the metabolism of proteids. The herbivora are unable to do this as perfectly as the carnivora, and consequently when organic acids are administered to them the alkalinity of their blood diminishes, and they succumb readily to acid poisoning.

T. A. Fodera and M. Ragona¹⁷ found that feeding rabbits upon bran, which produced an acid urine, reduced the alkalinity of the blood. Prolonged hunger produced a slight reduction in dogs. In rabbits, acids either per os or subcutaneously reduced the alkalinity while alkalies increased it. In dogs, however, under the same treatment, the reaction remained constant. In asphyxis quickly induced, there was no change, but when slowly produced the alkalinity of the blood increased.

Kraus claimed that destruction of red blood cells decreased alkalinity, but Fodera and Ragona found that in rabbits pyrogallol produced a slight reduction, but in dogs, none of the agents used (glycerin, ether, pyrogallol) produced any change. No relation was found between destruction of red corpuscles and the reaction of the blood.

It has been claimed that the herbivora are destitute of the power to neutralize acids by ammonia, but Dr. Winterberg¹⁸ as the result of recent investigation, comes to this conclusion:

Herbivora, as well as carnivora, possess ammonia which neutralizes acids. There is a quantitative difference in favor of the carnivora, but in principle, the chemical organization of both classes is the same. The herbivora stand in the position of carnivora receiving large doses of vegetable salts. Their minimal excretion of ammonia corresponds to the remains of ammoniacal salts not converted into urea. In this respect man resembles the carnivora.

Strauss suggests that the liver is the organ which is active in securing the neutralization of acids and also effects the storing of alkalies, when they are given to an undue extent. This is in accordance with what we know of the formation of urea (from which ammonia may easily be derived); and is borne out by the effect of dis-

eases of the liver on the alkalinity of the blood.

The pathological relations of the alkalinity of the blood are of very great importance and have been the subject of much investigation. Here we find marked differences between the results of earlier observers using the blood freshly drawn and those obtained by later observers using laked blood.

Conrad (1878) found the alkalinity of the blood lessened in chronic rheumatism, in diabetes, and in anemia. Cantani (1884) found blood in the last stages of cholera greatly reduced in alkalinity, and in some cases even acid. Von Jaksch (1887) found in fevers a constant reduction of alkalinity. In nervous diseases and in diseases of the heart and blood vessels without fever, he found the alkalinity generally increased. In kidney diseases without uremia there was no special change. In uremia there was a very marked reduction. In cancer and in diseases of the liver in which there was destruction of the liver tissues the reduction was marked. In chronic rheumatism, he found no diminution of alkalinity.

Kraus (1890) examined the blood with reference to its capacity for carbon dioxide, and found that without reference to the various character of the infection a notable diminution of the capacity for carbon dioxide of the venous blood occurs in men affected with fever.

This occurs with varying rapidity after the infection, and is parallel to the height of the fever, and the capacity for carbon dioxide returns to normal, soon after defervescence.

Antipyretic agents do not immediately cause this restoration to normal.

The diminution in the capacity for carbon dioxide is an expression of the diminution in the alkalinity of the blood. This was found by direct titration.

On the other hand, Strauss (1896) found in fevers, either no change or an increase in alkalinity: In no case was there a marked reduction. In new growths in blood diseases, and in diabetes the same result was

obtained. Similar conclusions have been reached by Berand, Von Limbeck and others.

The contradiction between these results and those of older observers is very striking and suggests the possibility that by laking the blood a factor is introduced which has no influence on the course of disease, and which therefore should be disregarded in considering the pathological relations of blood alkalinity.

Whether we regard the effects of the blood upon bacteria or upon the toxins, we must attribute those effects to substances dissolved in the blood serum, and not to matters imbedded in the corpuscles.

It would seem, therefore, that a method of estimating alkalinity that gives the best estimate of the alkalinity of the serum as it circulates in the vessels would give us the best idea of the efficient alkalinity of the blood. We may, therefore, admit that the later researches excel in scientific accuracy but we must believe that the former observations were expressions of facts which ought not to be disregarded.

In 1889 Peiper¹⁹ read an article in which he stated that he found alkalinity greater in adults than children, in men than in women and found great reduction in diabetes, in uremia, leukemia, and generally in fevers. In the discussion of this paper, Loeffler²⁰ stated that rats were rendered more resistant to anthrax by a meat diet, and cited an experiment to illustrate this fact. He took two sets of rats of equal weight and fed one set on meat and the other on bread and water. When they had become thoroughly accustomed to their diet the rats were infected with anthrax. Six, out of eight, that were fed on bread died, but of those fed on meat, one only, out of eight succumbed to the disease. Loeffler raised the question whether the meat diet increased the alkalinity of the blood and rendered the animals more resistant to the disease.

Von Fedor²¹ in an investigation of the bactericidal power of the blood serum demonstrated that arterial blood has greater germicidal power than venous blood; that

fresh blood is more effective than after standing. The bactericidal power was less in an atmosphere of oxygen or of carbon dioxide.

Blood of animals poisoned by carbon monoxid lost its power to kill bacteria. The bactericidal power was found to be greatest at a temperature of 38° to 40° C. These results evidently pointed to a connection between the alkaline reaction of the blood and its bactericidal power. This was confirmed by experiments in which it was shown that addition of alkalis increased this action of the blood serum. Sodium and potassium carbonates have a marked effect. Sodium bicarbonate and sodium phosphate considerably, and ammonium carbonate slightly increase the power of the blood to destroy or inhibit the action of bacteria.

Experiments upon rabbits showed that animals which received an injection of cultures of anthrax bacilli without treatment died soon after the injection while those which received injections of sodium carbonate in addition to the cultures either recovered or succumbed to the disease much later than untreated ones, and some of them showed no bacilli in the blood or tissues.

Behring and Schor²² repeated Fodor's experiments but without favorable results. Fodor²³ admits that he has not always obtained so favorable results. He found that on administering sodium bicarbonate to rabbits the alkalinity increased and the increase lasted from 24 to 48 hours.

The alkalinity of the blood in rabbits rises after infection with anthrax and then falls in proportion to the virulence of the infection. Rabbits whose blood is more alkaline resist infection better than those whose blood is less alkaline. Similar results were obtained with cholera bacilli, typhoid, tuberculosis and erysipelas.

M. Calabrese²⁵ of Naples, confirmed the results of Von Fodor and in 1895 gave the following account of his observations:

"I have immunized animals either with attenuated cultures or virulent cultures, or with bacterial or vegetable toxins and have determined the alkalinity of the blood by a very exact quantitative method. I have

always found that alkalinity increases in proportion to the degree of immunization and reaches its maximum when the animal has become completely refractory. The immunized animal reacts against infection by a moderate but persistent increase in alkalinity of the blood, while normal animals show at first an increase of alkalinity more or less intense, followed by diminution in the alkalinity in the hours preceding death."

A. Cantani²⁴ (1896) concludes as the result of his experiments with diphtheria, as follows: Animals treated with diphtheria antitoxin, show an increase in the alkalinity of the blood. This increase (in rabbits) occurs not earlier than two hours after the injection, reaches its height from 10 to 20 hours, and then slowly falls, reaching the normal after three days.

The increase in alkalinity is also noticed in animals which have been treated with antitoxin and afterwards received a fatal dose of toxin, while in those which have not been immunized the alkalinity of the blood is reduced.

Von Fodor and Rigler²⁶ in 1897 published further research showing the effects of vaccines and antitoxins upon the alkalinity of the blood. They experimented with a vaccine against anthrax, with antirabic vaccine, with diphtheria antitoxin and antitubercular serum. The alkalinity increases after injection with the vaccine against anthrax, but the increase is only to a certain extent parallel to the amount of vaccine used. With a very large amount the alkalinity diminishes again. The alkalinity is due to some vital action of the system and not to the injected vaccine. Rabbits injected with rabies died and the alkalinity fell steadily until death. Rabbits which were injected with the protective vaccine and then with the virus of rabies died after twelve days with slight diminution of the alkalinity. Injections of antitoxin raise it as in the case of vaccine, but in the case of vaccine the increase is permanent, while in the cases of an antitoxin it is only temporary. When injected at the same time as toxin the antitoxin pre-

vents the decrease of a alkalinity by the toxin and the power of resistance of the animal runs parallel to the increase in alkalinity. Animals previously treated, die with lowered blood alkalinity as if no antitoxin had been given, in marked contrast to their behavior when vaccinated against anthrax.

The cause of these variations in alkalinity seems to lie in an organic substance contained in the coagulable portion of the blood serum. The increase in alkalinity in immunization, or in treatment with antitoxin is brought about by an organic substance which increases as the result of immunization, or treatment with antitoxin, and decreases as the result of infection or the injection of toxins.

Löwy and Richter²⁷ experimented upon rabbits with injections of spermine, peptone, hemialbumose and diphtheria antitoxin. These experiments showed usually after the injection, a rise of alkalinity with diminution in the number of leucocytes, followed by an increase in the number of leucocytes and a return of the alkalinity to its normal grade. Pilocarpin gave exceptional results, in that the number of leucocytes was first decreased and then increased without any marked change in alkalinity. By refrigeration the number of leucocytes was diminished and the alkalinity of the blood at the same time reduced. When the same injections were made in dogs, no change in blood alkalinity was noticed, although an increase in number of leucocytes followed.

Caro²⁸ in an investigation upon leucocytosis concludes that after injections of spermin, tuberculin, and pilocarpin, there occur slight and temporary changes in the alkalinity of the blood, usually an increase of short duration and a subsequent decrease. These variations are so temporary and so uncertain that they cannot be regarded as of any therapeutic significance. He finds that a constant relation between the alkalinity of the blood and the number of white blood cells which Löwy and Richter found for rabbits does not exist in man.

Neuman found that the power of ani-

mals to resist infection was lessened by the artificial lowering of the alkalinity of the blood.

The substances which raise the alkalinity of the blood increase the power of animals to resist pneumonia and other infections. This is especially the case with spermine.

Strasser³³ found that cold baths increased the alkalinity of the blood.

Thomas³² finds the alkalinity of the blood reduced in acute alcoholism, and in chloroform narcosis but finds no change in chronic alcoholism, nor in poisoning by chloral, morphine or ether.

The methods of determining the alkalinity of the blood depend upon direct titration or upon some indirect determination such as the estimation of the capacity of the blood for carbon dioxid. This method has been much used in experimental work but it has been shown by Lehmann²⁹ that its results do not agree precisely with those of titration. By the formation of bicarbonates it is apt to show too high a degree of alkalinity in the blood serum, while it does not affect substances in the corpuscles that are decomposed by the other acids, and hence gives a lower degree of alkalinity for the corpuscles than the titration methods.

The titration method of Landois which has been used in some of its modifications by most of the earlier observers consisted in mixing the blood as soon as drawn with a solution containing sodium sulphate to prevent coagulation; to the solution of sodium sulphate was added tartaric acid in varying proportion until a mixture was found that with the blood gave a red color with very delicate litmus paper.

Löwy's method consists in dissolving the corpuscles by some method; as by the use of glycerine or breaking them up with the centrifuge and determining the alkalinity of the clear serum.

Berend has introduced a method by which the corpuscles are separated from the serum; and a separate estimation of the alkalinity of the serum and the alkalinity of the corpuscles made. He adds excess of acids and then titrates back with dilute

standard alkali, using litmus as an indicator.

There is no doubt that these methods are open to some objection for several reasons.

The choice of indicator is of great importance. Litmus is affected by carbon dioxid and hence the neutral point is reached too soon unless the gas is allowed to escape or expelled by heat. The use of lacmoid gives better results because it is not affected by carbon dioxid. Titrations are not capable of comparison unless the same indicator be used.

Excess of acid leads to fallacies because acids seem capable of separating alkali from neutral substances in the blood and combining with it. Moreover, Spiro and Pemsel³⁰ have shown that when excess of acid is used some of the acid is precipitated along with albumen and thus too high a degree of alkalinity is obtained.

The best results were obtained by these investigators by mixing the blood with water saturated with ether and precipitating with a saturated solution of ammonium sulphate. The clear filtrate was then titrated directly, using lacmoid as indicator. A similar method has been used by Kraus.

Salkowski has proposed a new method as follows: 20 Gm. of neutral ammonium sulphate are rubbed fine and introduced with the aid of 20 c. c. of water into the glass bulb of Schlössings' apparatus. A measured quantity of blood 10 to 25 c. c. are then added, and in the acid bulb of the apparatus 10 c. c. of decinormal acid are put. The apparatus is allowed to stand five or six days until the alkalies of the blood have expelled their equivalent of ammonia from the ammonium sulphate. The acid in the bulb is then titrated with decinormal alkali. Treated in this way pig's blood gave an alkalinity of 0.252 Na. OH. Rabbit's blood gave 0.214.

These methods of direct titration of the blood are so difficult of execution that they cannot be expected to come into practical use by the physicians.

The determination of the acidity of the urine may afford valuable indications al-

though too much reliance must not be placed upon it. The kidney by separating acid restores the proper degree of alkalinity of the blood. A very acid urine does not necessarily mean a diminished alkalinity of the blood but indicates an unusual introduction of acid from some source. The acidity of the urine becomes therefore a measure of the effort which the system is making to prevent reduction of the alkalinity of the blood rather than an indication of the success of that effort.

The presence of ammonium salts in the urine is another indication of the struggle going on in the system to prevent the reduction of alkalinity and preserve the alkalies of the system.

The influence of alkalies in promoting oxidation renders plausible the theory that reduced alkalinity is a factor in the causation of diseases that are characterized by diminished oxidation and reduced vitality of the tissues. These diseases show various phases of faulty metabolism. Among such diseases may be mentioned gout, chronic rheumatism, diabetes. In diabetes for instance, the tissues seem unable to use the food material presented to them in consequence of an imperfect power of oxidation, and so sugar, urea, etc., are excreted unoxidized while the tissues suffer for want of nutriment. It is very probable that the deficient alkalinity of the blood contributes to this abnormal phenomenon.

Kraus states that if to a healthy man 10 to 20 Gm. of sodium bicarbonate are given, his urine becomes alkaline after from one half hour to an hour; but if to a diabetic patient as much as 100 Gm. of the same salts are given, the urine will remain acid.

Some authors attribute diabetic coma not to acetone, diacetic acid or oxybutyric acid, but to the diminished alkalinity of the blood.

It may be remarked that even though the blood maintains a due degree of alkaline reaction the intercellular fluids of the tissues may have a much lower degree of alkalinity, and so contribute to a greater extent to the production of morbid phenomena.

The following conclusions, may, I think, be sustained by our present knowledge:

The reaction of human blood is constantly alkaline.

The alkaline reaction is due partly to inorganic alkalies and partly to substances of organic nature which are probably derived from the proteid food.

The regulation of the reaction of the blood is due to the action of the kidneys and probably of the liver.

The alkaline reaction of the blood is reduced in various diseases—uremia, diabetes. In infections it is lowered in proportion to the virulence of the infection, but increases with the recovery of the organism and in immune animals is above the normal.

In the treatment of diseases, causes of acid reaction should be avoided, particularly in infections. Thus the action of the skin and kidneys should be favored, and the production of acids by fermentation in the intestinal canal should be prevented.

The administration of alkalies in moderation is useful, but cannot be expected to increase the alkalinity of the blood to a high degree.

This is due to the fact that the inorganic alkalies are either temporarily stored in the liver or rapidly excreted by the kidneys.

The increase of alkalinity in cases of recovery from infections is probably not the cause of recovery, but is due to the production in the blood of a curative substance which is alkaline in reaction.

This substance is a nitrogenous organic compound, and is derived from the proteids. A meat diet, would seem, therefore, especially suited to patients suffering from infection. It may be the case that nitrogenous constituents of beef tea (although not proteid) are capable of furnishing the material from which such an alkaline protective agent can be produced.

BIBLIOGRAPHY.

1. Zeit. f. Klin. Med. B. 30 H. 3 & 4.
2. Gaz. Med. de Paris, 1879, s. 149.
3. These de Paris, 1878.
4. Zeitsch f. Heilkunde, Vol. 10, N. 2.
5. Centralbl. f. Klin. Med., Vol. 92, No. 24.
6. Wien. Med. bl., 1895, S. 295.
7. Zeitschr. f. Klin. Med., 1887, P. 350.

8. Zeit. f. Heilkunde Bd. 17, H. 2 & 3.
9. Centralbl. f. Klin. Med., 1892, No. 34.
10. Text Book of Physiology, Vol. 1, p. 144.
11. Archive f. d. ges. Physiologie, 1874, Bd. LX, S. 44.
12. Boston Med. and Surg. Journal, 1890, No. 21, p. 503.
13. La Tribune Medicale Paris, 1893, June 23.
14. Archiv. f. Exp. Pathol. & Pharmak., Bd. 19, S. 233.
15. Virchow's Archiv. Bd. 130, S. 332.
16. Virchow's Archiv. Bd. 58, S. 1.
17. Centralbl. f. Physiol. Bd. 12, S. 475.
18. Zeit. f. Phys. Chem. Bd. 25, S. 202.
19. Virchow's Archiv. Bd. 116, S. 337.
20. Deutsch. Med. Woch., 1890, April 4.
21. Von Fodor Centralbl. f. Bact. Parasitenkunde, Vol. 7, No. 24.
22. Centralbl. f. Bakter, Bd. 10.
23. Centralbl. f. Bakter, Bd. 17, S. 225.
24. La Semaine Medicale Paris, 1893, June 23.
- 11 Poloclinico, Feb. 15th, 1896.
25. Centralbl. f. Bakter, Bd. XX, S. 566.
26. Centralbl. f. Bakter und Parasitenkunde, Feb. 6 & 15, 1897.
27. Deutsch. Md. Wochenschrift, 1895, No. 33.
28. Zeit. f. Klin. Med., Bd. 30, S. 339.
29. Archiv. f. die Physiologic Bd. 58, S. 428.
30. Zeit. f. Phys. Chemie., Vol. XXVI, p. 232.
31. Centralbl. f. die Med. Wissenschaft, Vol. 36, p. 913.
32. Archiv. f. Exper. Pathol. und Pharm., Bd. 41, p. 1.
33. Wien. Med. Presse, Bd. 37, No. 22, p. 731. See also—
- Walter Archiv. f. Exper. Path. und Pharmak., Bd. 7, S. 149.
- Bering Zeit. f. Hygiene, 1890, p. 463.
- Rumph. Centralbl. f. Klin. Med. 1892, No. 24.
- Witkowski, Arch. f. Exp. Path. und Pharm., Bd. 28, S. 283.
- Meyer. Archiv. f. Exper. Path. und Pharm., Bd. 17, S. 304.
- Thomas Archiv. f. Exper. Path. und Pharm., Bd. 23, S. 498.
- Brandenburg Zeit. f. Klin. Med., B. 36, S. 267.
- White, J., Boston, Soc. M. Sc., 1898 and 1899, 111 p. 52.
- Loeb. Arch. des ges. Phys., 1898, p. 422.
- Swiatecki Zeit. f. Phys. Chemmie, Bd. 15, S. 49.
- Zury und Geffert, Pflgeri Archiv., Bd. 42, S. 233.

INJURIES OF THE SCALP.

BY H. C. FAIRBROTHER, M. D., E. ST. LOUIS.
Professor of Railway Surgery, Marion Sims College of Medicine.

The peculiar anatomical structure of the scalp, the free gliding over each other of the skin, fascia, areolar tissue and muscular

aponeurosis, its normal oily condition, its hairy covering and its usual state of uncleanness, render its injuries of such a nature as to require consideration separate from that of other wounds.

Scalp wounds may be either contused, contused and lacerated, incised or punctured. Contused wounds of the scalp, though of frequent occurrence, are of little surgical importance. The free vascular supply, together with the very loose and open areolar tissue and the bony background render the effects of these contusions more immediate and of greater extent than elsewhere. Within the time of two or three minutes great tumefaction may occur. Persons are often frightened at the rapid forming of large knots upon the scalp following comparatively slight blows. These lumps often present a feeling of fluctuation, but when cut down upon no free fluid will escape. The entire swelling will be found due to the injection of the areolar tissue. The skin may even be diminished in thickness. In some instances the swelling will be found circular in form and depressed in the center like an air cushion, due to the spreading in all directions of the areolar tissue from the point of contusion. The contused wounds when not attended by laceration or fracture, will soon be recovered from without treatment, but some of the cooling applications are often grateful and helpful.

Contused and lacerated wounds of the scalp are the most frequent in occurrence, the most grave in character and the most difficult in treatment. In railroad surgery they are practically the only kind met with. They are caused chiefly by falls from cars, by low bridges, by getting off cars while in too rapid motion, or by being struck by cars and knocked down, the head striking upon the cinder or gravel roadbed, a tie or some other object. These wounds are sometimes very extensive in character amounting to the scalping of half the cranium and are often seriously complicated by the cinders, dirt, splinters, etc., with which they are frequently filled. In some cases the bone is found to be fractured, especially

about the orbits and numerous spiculæ driven into the surrounding tissues. Considerable time often elapses before treatment is had which lessens the healing power of the uprooted fragment of scalp and increases the risk of infection. And the location of these wounds being beyond the view of the patient, they are often examined with his fingers which also increases the liability to infection.

Incised wounds are of the simplest nature. They usually heal by the first intention. If the parts are frequently coaptated there is "immediate" union, that is, union without intervening plasma, and almost immediate with regard to time, as two or three hours are often sufficient for the lips of a scalp wound to become quite firmly adherent. The risk of infection in these cases arises from the uncleanness of the knives used and the driving of hairs into the wounds, but there is usually sufficient hemorrhage following to remove the danger from these sources.

Punctured wounds of the scalp differ from punctured wounds of other parts of the body on account of the tissues of the scalp gliding over each other and frequently shutting off the outlet. Thus serum or blood or pus may be penned up in the bottom of one of these wounds by having its means of escape cut off and serious consequences follow.

The complications which sometimes attend open wounds of the scalp are the following: Simple inflammation with healthy suppuration, simple infection, erysipelas infection, gangrene and a state of the wound which does not come under any of these heads and which is characterized by an absence of healing power. Though some of these wounds may escape inflammation to the extent of pus there are none which escape it altogether. In the great majority of them, and especially in those where the scalp is uplifted from the cranium and cinders and other dirt injected, suppurative inflammation is inevitable. But this pus has no surgical significance and is only an effort of nature to complete what the surgeon has left undone in the way of cleanli-

ness. The writer does not belong to that happy class of surgeons who have become so estranged from pus as to have forgotten its features.

A wound of the scalp, like that upon any other part of the body, may become infected, but the scalp wound for the reasons above stated, is the most liable to infection, both of the simple and erysipelas variety. It is considered fashionable to speak of infection as due to some fault in the technique of operation, dressing or after dressings, but such statements are often misleading and sometimes damaging especially when made in courts of justice. In accidental surgery there sometimes exists causes of infection which are unavoidable. The wound may become infected by foreign bodies containing germs being buried in the tissues entirely beyond the reach of discovery. In other cases the infecting germs enter the wound before it reaches the hands of the surgeon and take up their abode in nooks and corners, so hidden away that no antiseptic will reach them. Thus the worst forms of sepsis may occur without any fault whatever in technique.

Erysipelas infection, it is generally conceded, is more frequently met with in the wounds of the scalp than in those of any other part. This disease is readily distinguished from simple inflammation or simple infection by its chief site of attack being the skin, and by its specific manner of spreading. It has a special inclination to extend to the eyelids and to one or both sides of the face, and like cellulitis is attended with a rise of temperature preceded by a chill.

The retrograde action of scalp wounds is a complication sometimes met with. For many days or even weeks, the wound will remain at a standstill. The lips will become retracted, assume a pale or bluish color, become puffy and exude an ichorous discharge. This condition will usually be found due to a foreign body imbedded. It may be at considerable distance from the point of entrance. A piece of cinder may be driven into the wound at the time of accident and pass beneath the fascia into the

loose areolar tissue and along the smooth surface of the aponeurosis of the occipitofrontalis, and possess such a contour that the movements of the scalp cause it to recede from the open wound rather than approach it, and on account of some constitutional peculiarity, fail to set up suppurative inflammation, but maintain such a degree of irritation as to completely thwart the healing process. When such a body is discovered and removed either through the open wound or by being cut down upon, healthy action is immediately resumed.

The proper treatment of scalp wounds requires the greatest care and patience and as much skill as can be had. Time is no object. This work is not done by the watch. Asepsis is an essential quality. Proper preparation is all important. If possible the patient should be removed to a modern dressing room, either in a hospital or office of a surgeon, where sterilized antiseptic water, curved basin, good razor and all other suitable appliances are at hand, absolute and antiseptic cleanliness of hands and instruments and field of injury and all materials used in dressing are the important points of this delicate work. The chief interest centers upon the cleansing of the wound, and in this, the most difficult operation is usually the removal of foreign bodies. If the wound is found to be filled with cinders, as is frequently the case in railroad injuries, a tedious work confronts the surgeon. These cinders are not confined to the open pocket of the uplifted scalp, but are deeply ground into the skin, fascia, areolar tissue, muscle and periosteum. Varying in size from a pea to the finest grains of powder this substance fairly saturates the wounded area of scalp, and though great time may be used in this cleansing process and all perceptible grains removed, still the staining effect of the powder may remain. If the wound be upon the forehead, bridge of nose or any other exposed surface, the disfigurement may be great and permanent, and notwithstanding every effort and the greatest skill have been used still an unjust reflection upon the operator may remain.

The best instrument for the removal of cinders and other like material is the curette of different sizes. This, aided by a forcible stream of warm antiseptic water and the use of ample time is usually successful in the removal of all grains, but the powder and its stains can only be removed by cutting away the tissue itself, which, in many cases would produce a scar of greater damage than the discoloration. For the purpose of removing cinder or powder stain from the eye ball, especially the sclerotica, the tissue may be scraped off to a considerable depth and leave no perceptible cicatrix, but upon the forehead or nose the skin cannot be removed without a remaining scar. Good results may be often obtained in the removal of cinder and powder stains from the scalp or face by free cantharidal vesication. The epidermis being elevated the serum washes the staining material out of the cutis into the vesicle.

A necessary adjunct to the proper cleaning and treatment of these wounds, when upon the hairy scalp, is the clean shaving of the field of dressing, usually about one-half inch on either side of the wound, unless the wound be very slight, when this may be omitted.

The suturing of scalp wounds is as necessary, and attended with as little danger, as the suturing of any other wounds. It has only been a few decades, however, since it was taught that this practice was objectionable on account of the part it was supposed to play in the production of inflammation. Adhesive plaster was advised for holding the lips of the wound together, or the tying across of locks of hair, an impracticable procedure. If a portion of the scalp is raised from the cranium, it is the better course to apply a drainage tube of small size. A small roll of iodoform gauze is frequently used for this purpose but this is more liable to form a plug by the superficial drying. If the wound is incised or small and upon the hairy scalp it may be dressed without the cap bandage by smearing it over with mercurial or zinc ointment or a solution of iodoform in collodion and spreading over it the hair. But, if large,

a pad of antiseptic gauze should be used and a cap-bandage applied by passing a roller from right ear to left and return two or three times, being held at these points by a finger of the patient or an assistant, then three or four times around the forehead and occiput to the place of beginning and secured by a safety pin including the entire thickness, and a similar pinning on the opposite side. This bandage should be of gauze or domestic not exceeding two inches in width, nor three yards in length. If much exposure is to be encountered this may be covered with a crinoline bandage. Unless trouble is indicated by temperature or pain this dressing should not be disturbed for a period of four days, when it may be removed, after moistening with antiseptic water, the stitches taken out and also the drainage tube if no pus has formed. If infection, sloughing or erysipelas occur these are to be treated upon the principles of modern surgical practice for wounds in general.

INTESTINAL AUTO-INFECTION.*

G. J. RIVARD, M. D., ASSUMPTION.

Intestinal auto-infection means the pathological condition or toxemia resulting from the absorption of poisons generated within the intestinal tract. These poisons may be the result of chemical putrefaction or fermentative or bacterial action. We may have auto-infection from any part of the intestinal canal. Some claim that it occurs with more frequency in the small intestine on account of the increased amount of water in the feces, which may be conducive to the solution and absorption of certain bacteria and their products. Again others claim that auto-infection takes place more frequently in the large intestine, especially the descending colon, sigmoid flexure and rectum because the decreased watery elements leave the feces more nearly solid and they remain longer, and putrefaction takes place, septic microorganisms multiplying

*Paper read at the Semi-Annual Meeting of the District Medical Society of Central Illinois, Pana October 30, 1899.

rapidly. These disturbing elements are taken up by the circulation and possibly by the lymphatics and thus disseminated to all parts of the body.

In order to better understand the morbid condition existing in intestinal auto-infection it may be well to recall what the normal contents of the intestinal canal are. Grossly speaking, the contents are made up of partially digested foods and liquids, of refuse products of foods, the excrementitious portions of digested fluid, water, gases and animal alkaloids, together with a multitude of microorganisms and their products.

We know but little at present of these gases, alkaloids and microorganisms as regards their action and properties in health and disease. There is no doubt however that as we become more familiar with the poisonous agents contained in the digestive fluids and excretions, we shall become more familiar with many diseases now called functional for the reason that we do not understand their pathology.

Bouchard has said, the organism in its normal as in its pathological state, is a receptacle and a laboratory of poisons, some of these are formed by the organism itself, others by microbes, which either are the guests, the normal inhabitants of the intestinal canal or are parasites at second hand and disease producing. He has shown that the peptones of normal digestion contains poisonous alkaloids which, whether due to gastric or lower down to pancreatic digestion, will when introduced into the blood of an animal cause death. He has shown that when the urinary tract becomes denuded of its epithelium, in a very short time a sufficient amount of poison is secreted by the kidneys to cause death. When we have renal suppression resulting in death he attributes it to the absorption of poisons normally secreted. As we become familiar with the almost innumerable poisons within us we are forced to admit that we are constantly tottering on the brink of self-destruction, and that we need only to disobey some one of nature's laws to upset the equilibrium and to fall a prey to some one

of these poisons. It becomes apparent then that for auto-infection to take place two things are essential:

1st. There must be impairment of physiological function.

2d. That poisons are constantly formed in us in health.

We know that in the physical system every cell has a duty to perform and the same can be said of those aggregations of cells which we call organs. Impair or destroy a single one and the economy suffers, and the effect is in proportion to the importance of the work normally allotted to it. Now if from any cause, the liver, the lungs, the skin, the kidneys or the blood should get out of order and fail to perform their function, what is the result? Poisons that are being secreted are not being rendered harmless, on the one hand, or are not being thrown off, but are allowed to accumulate, enter the circulation and are distributed throughout the body, causing local or systemic infection as the case may be. Again the physical soil is prepared for absorption of poisons by anything that will cause a lesion of the intestinal mucosa or distend, press upon, or weaken the walls of the intestines, such as the accumulation of feces, tumors, strictures, ulcerations, inflammations, operations, etc.

Just so long as the emunctories are performing their individual functions and there is no lesion of the intestinal mucosa, all is well and all poisons whether fermentative or bacterial will be harmless for the reason that they are thrown into a special reservoir, and there destroyed or neutralized and afterward discharged from the body. The blood constantly takes from the organs poisons as soon as they are formed and renders them inert. This is done by the *defensive proteids* contained in the serum of the blood. They act in three different ways, 1st, by killing the bacteria; 2d, by weakening or attenuating the bacteria; 3d, by neutralizing toxins.

It is very difficult to determine in cases of auto-infection where health leaves off, and disease begins, for the reason that the poisons are physiological factors, and on the

other hand when the system becomes susceptible they become active pathological factors.

The most frequent cause of auto-infection is constipation, especially when complicated by a fecal impaction. The accumulated effete matters undergo decomposition, poisons of the ptomaines or leucomaines are formed which are as active as the bacilli of typhoid or cholera. The result of the absorption of these poisons is systemic infection with which we are all familiar in cases of chlorosis and anaemia. These patients complain of a feeling of lassitude on arising in the morning—headache which is almost constant. They are impatient and careless about attending to their usual duties, do not care to read or talk, are inclined to melancholia, pale, have greenish complexions and a foul breath. They have a depraved appetite, indigestion, dizziness and palpitation. The system may become so saturated with poisons that they look like a person with a malignant growth in an advanced stage. Auto-intoxication causes various circulatory disturbances. The cutaneous vessels become contracted, an increased amount of blood being thus thrown into the central organs and the body's equilibrium interfered with. The pulse may be slow or full or rapid and feeble, either condition depending upon the extent of intoxication and its influence upon the nervous system. The heart is frequently very excitable and patients have fainting spells. At times the blood, instead of being retained in the central organs, remains in the extremities and causes dilatation of the veins.

The effect of auto-infection on the respiratory organs is principally noticed when there is a lung complication and vice versa. All lung diseases become markedly worse when there is systemic intoxication for there is deficient oxygenation of the blood.

The colon bacillus plays an active part in the causation of some forms of pneumonia and empyema. In lung diseases when the amount of tissue involved is extensive and death ensues, it is due to auto-infection—a result of the accumulation and

absorption of carbonic acid gas and other poisons that should have been eliminated by the lungs.

Auto-intoxication has a very marked effect on the skin; it may be pale, muddy, unhealthy in color, the secretions may be foul smelling and there may be one of the many skin diseases.

The effect of auto-intoxication on the nervous system is indeed very great. We observe it in our daily practice in a great diversity of nervous phenomena. Drowsiness, due to absorption of some intestinal gas, like sulphuretted hydrogen, which is known to have a soporific effect, is one of the most frequent of the nervous manifestations. Still these drowsy patients are poor sleepers. They roll and toss about the bed, have horrible dreams and awaken in the morning feeling weak and exhausted, and often bathed in a moist, clammy, unhealthy perspiration. Headache and neuralgia are due to intoxication. It matters not where the pain is located. Who has not seen the disappearance of headaches after the complete evacuation of the contents of the bowels? A number of nervous functional diseases are often produced as a result of fecal toxemia. The absorption of ptomaines and leucomaines is known to be a cause of some forms of insanity. Epileptics are known to have fewer attacks so long as the colon is kept cleaned out.

While constipation and fecal impaction are prime factors in the causation of auto-intoxication, yet this condition may be brought on by diarrhoea and other causes. Park tells us there takes place within the intestinal laboratory such a putrefaction as produces ptomaines which are at the same time toxic and cathartic in their action, so that the irritating material is expelled by virtue of the very poisons it has produced, and it furthermore often happens that the exhibition of a vigorous cathartic, for instance one of the mercurials, will so admirably clean out the intestinal canal that not merely is the entire action prevented or checked, but that a most happy effect is exerted upon septic disturbances commencing else-

where. Patients suffering from rectal ulcer become emaciated, nervous, have sallow complexion, are inclined to be melancholic or have all the symptoms of systemic infection. Diarrhoea is ever a prominent symptom of ulceration. It complicates matters by rendering soluble and distributing the poisonous elements in the feces to any exposed point of the mucosa and facilitating their entrance into the circulation. Perhaps the most typical cases of auto-infection from the intestinal canal are to be found in cases of stricture of the rectum and colon, for we have in these cases fecal impaction above the point of constriction and frequent stools induced by reflex peristalsis. The former causes ulceration of the walls of the bowels and favors putrefaction and fermentation, while the latter renders the poisons capable of being scattered about. As a result more poisons are generated and absorbed than nature can take care of and you have systematic intoxication. In fact any disturbance of the bowel which causes a diarrhoea or constipation predisposes the individual to auto-infection and its many evils.

Among the intestinal bacteria the *colon bacillus communis* is the king of disturbers. It has been found in nearly all the organs in the body and is said to have pyogenic properties. It has been found most frequently in cases of infectious diarrhoea, empyema following enteritis, broncho-pneumonia, endocarditis, cystitis, nephritis, disorders of the liver, appendicitis, periappendical abscess, perforative peritonitis, laparotomy wounds, in fluid of strangulated hernia and perirectal abscess.

The treatment of auto-infection should be in a large measure prophylactic. 1st, We must remedy any condition which predisposes the patient to self-infection. 2d, We must use every possible means to prevent abnormal production and absorption of poisons within the intestinal canal. 3d, We must do all we can to assist nature to neutralize and eliminate poisons already absorbed. All conditions which weaken or cause erosion of the intestinal mucous membranes must be corrected. Such as irritat-

ing discharges of all kinds, ulcers, fissures, hemorrhoids, polypi and other growths. Constipation and diarrhoea, the most frequent causes of auto-infection must be corrected. A good and safe plan when an irritant within the intestinal canal promotes auto-infection is to give a vigorous cathartic, calomel followed by epsom salts or castor oil probably being the most effective. This must be followed by a tonic laxative for a long or short period dependent upon the extent and continuation of the infection. Laxative mineral waters such as Hunyadi or Carlsbad, a pill composed of aloin, strychnia and belladonna or one composed of lactate of iron, nux vomica and aloes are all efficient in eliminating poisons. After abdominal operations, the wound being healthy, if the temperature should suddenly rise on account of auto-infection, a cathartic should be administered which cleanses the bowel of accumulated feces and the temperature will immediately become normal. In obstetric practice we occasionally meet cases which make most favorable progress until suddenly a chill, followed by high fever leads us to suspect infection. A brisk cathartic is followed by a fall in the temperature and an amelioration of all the distressing symptoms. A short time ago I attended a case of obstetrics in which the lady was delivered with the forceps after a 36 hour labor. Two hours after delivery the mother was to all appearances in a state of profound shock, pulse 150, very feeble, skin bathed in a copious perspiration, breathing rapid, pupils dilated, thirst intense. There was no uterine hemorrhage, neither internal nor external. The discharge being normal in every respect. The bowels had moved during the day previous to confinement. Aromatic Spt. Am., digitalis and nitroglycerin were administered with no perceptible benefit. Upon palpation the abdomen was found to contain hard lumps, principally in the region of descending colon. A diagnosis of fecal impaction having been made, an enema of 1/2 gallon of hot water was given. In half an hour a large evacuation of hard and dry lumps of fecal matter

took place. In an hour a second enema of 3 quarts of hot water was given which was followed by a passage which thoroughly emptied the colon. In a very short time the alarming symptoms disappeared and the patient was comfortable.

Errors of diet should be watched closely, alcoholic stimulants should be prohibited and if a special diet is recommended milk should be selected because it is known to be opposed to all sources of intoxication due to putrefaction.

The next step in the treatment of this auto-infection is the prevention of the abnormal production and absorption of poisons. To accomplish this we must rely on intestinal antiseptics, both local and general. Among the most efficient ones are the iodides of potassium and sodium, iodine, benzine, boric acid, salol, resorcin, turpentine and mercurials. The best results are usually obtained from those insoluble drugs which remain unchanged throughout their course till they reach the colon, such as salicylates of bismuth, salol, iodoform, naphthalin. To neutralize poisons already formed and prevent fermentation, 10 grs. each of Bis. Sub. nitrate and charcoal repeated at short intervals are very efficient. Iodoform and charcoal or naphthaline and charcoal will accomplish the same purpose.

The last feature in the treatment consists in assisting nature to neutralize and eliminate poisons which have already entered the circulation. To accomplish this the eliminatory apparatus must be kept in perfect order, for when one of the emunctories gets out of order poisons immediately accumulate which nature can neither neutralize nor eliminate. The blood and nervous system must be kept up by such tonics as Gudes peptomangan, strychnia, arsenic, etc.

The kidneys may be stimulated by diuretin or urotropin and the skin kept in order by frequent cold baths followed by brisk toweling.

In closing this paper I wish to call your attention to but one more therapeutic measure used in the treatment of auto-intoxica-

tion, and that is colonic lavage. Especially is it of benefit in cases of gastro intestinal atony, and of catarrhal inflammation of the bile ducts when the liver becomes unable to take care of the poisons which pass through it from the blood, also in uremia or auto-intoxication arising from suppression of the renal functions. The skin is capable of excreting more toxic material on account of the increased circulation resulting from lavage.

INFLUENCE OF MIND ON BODY.*

BY J. E. SUTTON, M. D., CANTON.

Fads in medicine are delusions in regard to the unpossessed curative powers of drugs, or the curative virtues of necromancy, jugglery, sorcery, conjury, slight of hand, osteopathy, suggestion, christian science, divine healing, magnetic healing. Conjury and sorcery was practiced in the days of the Pharaohs. Christian science, suggestion and magnetic healing are delusions of this enlightened age. Medical fads, like the ocean tides, rise and fall twice every 24 hours, phoenix-like.

"When one delusion sinks and dies
A hundred from its ashes rise."

This extract from a communication to the *Medical Summary* by Dr. G. M. Dewey, expresses, perhaps, the common professional belief with reference to all practices outside of our own. It is well that we believe in ourselves, in our church, in our political party, in our nation against the world. 'It is fundamental to success that we believe in something, intensely and strong. It is by no means absolutely necessary that our beliefs be scientifically and demonstrably true. It is enough if our best welfare is promoted physically and morally.

Delusion, in a sense, is inherent in the nature of things—a necessary accompaniment in the way of advancement on whatever line. We are but "babes in the woods" and must work our way out from the tangle and brush, through storm and

*Paper read before the Fulton County Medical Society, April, 1900

sunshine, day light and darkness, and not be disarranged by the hooting of owls of wisdom, perched above our heads, who see more in the dark than they possibly can in the light.

The writer quoted above says: "Christian science, suggestion and magnetic healing are the delusions of this enlightened age." That there is an epidemic of "fads" needs but the statement, as you are all fully aware of the fact, and the marvelous extension, especially of christian science over the whole world within recent times, and must also be cognizant of the fact that much good is being accomplished, i. e. many cures of disease are effected, numbering among them scores of cases that have baffled the skill of our best physicians. I state this as beyond contradiction. Accepting this statement as true, what is our duty with relation to the fact? Manifestly, as men of science, to inquire into the cause, not simply to cry delusion—delusion, all delusion.

Without going into a profound discussion, with proof, it will be presumed that no one will deny the existence of a something in nature called matter. Another something called energy or force. Still another called intelligence or mind. It will be admitted also that all our knowledge of matter comes to us through the medium of impressions on our senses. And these impressions or suggestions, if you please, are made through or by forces of which matter is the vehicle. That is to say, we know absolutely nothing about matter except as impressions on our senses translated or interpreted by the mind and this interpretation varying greatly according to different circumstances and conditions. We form different ideas of the same thing when, in reality, no difference exists. For instance matter in motion, impresses us in one case as heat, in another as light, in another as sound, in another as electricity, and in another as nerve force; each and every one scientifically different modes of motion translated by the mind in some way to suit the exigencies of the case and bring us into relation with our surroundings.

Apropos to this permit me to quote M. Chas. Richet, French scientist, in *Revue Scientific*, Dec. 23, 1899: "The exterior world with all its aspects, infinitely diversified, its colors and its forms is but the sum of different vibrations. These vibrations of diverse qualities and energies, act on the living being and produce sensations in him. Now it is very likely that the vibrations in the external world act on our sense organs, by producing in us another form of vibration necessary for the existence of perception and sensation. Nerve vibration thus seems to be the consequence and final result of external vibrations. If there were no nerve vibrations, there would still assuredly be in the world all the other forms of vibration that now exist, but they could produce no physiological effect. The human consciousness could not be reached. The living creature, by the fact of his own vibrations is the receptacle—the microcosm on which at each moment the different vibrations of the universe are concentrated, and the universe is accessible to our knowledge only through this vibration." Ponder then for a moment. Is it self evident that our whole idea of matter is not a mere concept of the mind, and that *force* is not the reality of which we are directly cognizant as coming in immediate relation to our personal consciousness, and, therefore, that there may not be more truth than poetry in the teachings of christian science that "*nothing exists but mind.*" Prof. Clifford, one of England's greatest men, said: "The universe is made up entirely of mind-stuff. Some of this is woven into the complex form of human minds containing imperfect representations of the mind-stuff outside of them."

So also Herbert Spencer: "The power manifested throughout the universe distinguished as material, is the same power which in ourselves wells up under the form of consciousness." At all events it is before this great mystery these "christian scientists bow and ignorantly worship. God pity the ignorance, stupidity and superstition of this enlightened age. At the beginning of the 20th century, and submerg-

ing their objective sense beneath subjective dreams they produce within themselves that disaggregation of consciousness, which forms the working basis, or condition for hypnotic suggestion, a powerful resource in the cure of many diseases when intelligently applied. But laying aside science we will maintain the common sense view that there exists matter force and mind and all the phenomena of life consist of a play of these elements, each affecting the other in varying ways and degrees according to the circumstances and conditions present at any given time.

We are then to discuss as briefly as possible the influence of mind on body to see if a scientific and rational explanation of the wonderful cures reported of the various so-called "fads" is not at hand and ready for adoption to its fullest extent by the profession of today.

What then is mind? Not simply a thinker, but a mental force capable of acting on matter—the body. It may be regarded in its manifestations as subjective or objective, conscious or unconscious. It is a function of the mind to think and act consciously. So also is it to think and act unconsciously. In fact the most and best work of the mind is done unconsciously, a truth not so fully recognized as it should be.

Let us notice then a few of the effects of mind physiologically. Joy and hope quickens the circulation and excites the whole muscular system. Grief and despair depresses, and inhibits the flow of blood. Courage gives a lofty step, muscles firm and resisting. Anger flushes the face, contracts the upper lip and impels the body forward. Fear pales the countenance, shrinks and paralyzes the muscles, causes spasmodic respiration and impels the body backward. So we might go on and contrast love and hate, pride and humility, adoration and revenge, etc., etc., all exhibiting the effects of mind acting on the body physiologically. Now notice some other effects. A short time since a gentleman somewhere in Indiana attempted to scare a couple of boys who were committing some depredation on

his premises by firing off a gun. One of the lads played shot. A neighbor woman, hearing his cries, dropped dead. The gentleman supposing he had shot the woman, took immediately to his bed sick and became rapidly unconscious (reported in Chicago Tribune of recent date).

A station master of one of the Italian railways 55 years of age and in robust health, was awakened one morning with the news that his station had been robbed. He felt his responsibility so acutely that he immediately became ill and died within 24 hours, all assurances of his superiors and the encouragement of his relations failing to reassure him. There was utter prostration, spasmodic action of the stomach with obstinate vomiting, hollow voice and failing pulse, consciousness continuing to the last (reported in Medical Times and Gazette, 1868).

Before the People's Bank of Canton broke some years ago, Mr. Dite Hoblitt, the cashier, and practically the whole bank, so far as its operations were concerned, was as large, full and healthy a specimen of humanity as one could wish to see. After the break he at once fell sick because completely prostrated. Could neither eat, drink nor sleep, body contracted and shrivelled in appearance, heart weak and rapid and thus he continued going down in spite of doctors and friends until death came to his relief a short time thereafter.

Dr. Darwin relates: "A young farmer in Warwickshire, Eng., finding his hedge broken and sticks carried away during a frosty season, determined to watch for the thief. An old woman approached and began to pull up the hedge. He waited till she had tied up her bundle, then springing from his concealment he seized his prey with violent threats. After some altercation in which her load was left on the ground. She kneeled upon the bundle of sticks, and raising her arms to heaven beneath the bright moon, spoke to the farmer already shivering with cold: "*Heaven grant thou never mayest know again the blessing to be warm.*" He complained of cold all the next day, and wore an upper

coat, and in a few days another, and in a fortnight took to his bed, always saying nothing made him warm. He covered himself with many blankets and from this one insane idea he kept his bed above twenty years for fear of the cold air till at length he died." These are examples of diseased action or along the pathological line.

While making a call in the west part of Canton a gnat got into my eye (at least I thought so). It resisted every effort at dislodgement; pained so severely that it was necessary to keep the eye closed, and with a handkerchief over it I hurried to my office and before the mirror proceeded to get rid of the offense, but 'pon mine honor I could see no difference between that and the other eye. The pain disappeared as if by magic. There was absolutely nothing in it, or about it to cause any pain. It was purely imaginary and could have been easily cured by prayer, or christian science, or any other such thing.

Late one fall I called to see a patient on a cold, damp morning, and inadvertently sat down too near a stove. Presently I began to get warm—hot, oh! so hot. Jumping up I grabbed my chair exclaiming: "Can't stand this—*too hot here!*" Whereupon the lady of the house laughed outright, saying, "Why there isn't a bit of fire in the stove." It was true. Examination proved it and I cooled down. Imagination pure—sensation from within.

A soldier in the French army was dropped on field of battle by a large cannon ball, where he lay in agony almost dying of thirst, till 24 hours later he was found by those attending to the dead and wounded. They enquired, "Well, what's the matter with you?" Why both of my legs are shot off and I am nearly bled to death." "Nonsense. Get up here." He finds the ball had struck at his feet ploughing out a hole into which his feet dropped, the shock also knocking him down; and altogether he was as good as dead—in his mind. These are purely imaginary effects. Hundreds upon hundreds of such like instances as noted above could be related, but I leave you to draw on your own experi-

ences and imagination, while I present the following propositions:

1st. That sudden mental emotion may induce sickness or death within a brief space of time, or even immediately and in persons of robust health.

2d. The physical phenomena induced by such cause indicate a deep perturbation—*vibration*—of the nervous system, and are generally of a dynamic character.

3d. Thought strongly directed to any part tends to increase its vascularity and consequently its sensibility. Associated with a powerful emotion these effects are more strikingly shown.

4th. Thought strongly directed *away* from any part diminishes vascularity and lessens sensibility. The more so when associated with powerful emotions (the key which unlocks christian science and other fads).

5th. The emotions may cause sensations, either by directly exciting the sensory ganglia and the central extremities of the nerves of sensation; or, by inducing vascular changes in a certain part of the body which excite the sensitive nerves at their peripheral termination.

6th. There is no sensation, whether general or special, excited by agents acting on the body from without which cannot be excited also from within by emotional states affecting the sensory ganglia, such sensation being referred by the mind to the point at which the nerve terminates in the body.

To elucidate these propositions fully and satisfactorily in the short time allowed for this paper is an utter impossibility. However, perhaps we have sufficiently indicated in the foregoing the power of the mind on the body and the scientific basis of disease and its cure as practiced by the "scientists" and all that genus down to Dowie. It is that disease is either purely mental or influenced more or less by mental condition (surely this latter must be true), and therefore amenable to, or largely effected by the applications of the laws governing mental force. It is not to be contended for a moment, that mental force can directly de-

stroy infection, kill microbes, neutralize poisons, set bones or perform any surgical operation. Such utter nonsense is too absurd for any to believe excepting God forsaken fools. Yet, indirectly, we would say by modifying circulation and sensibility, stimulating secretion and excretion and improving nutrition and quality of blood, any and all diseases or lesions may be favorably effected thereby. We would insist then on looking on the mind as a *force* not simply a thinker. All thought tends to work out in action—motion—and thus we become aware of energy. There is, therefore, a profound truth in the expression, "*As a man thinketh in his heart, so is he,*" and *don't you forget it*, if you will allow a little slang. Caring out this idea, when a man thinks he is sick, *he is, or will be*. And if you can make him think otherwise, or diverting his thoughts away from the diseased parts and putting in operation health producing thoughts he will *be* well, or *get* well. This is all there is in christian science, and it has no more divinity in it than a stone. I have studied more or less for years, with interest and care, mesmerism, magnetic healing, faith cure, etc., etc., and am thoroughly convinced, not only of their more or less practical potency, but that they are all of a kind, and dependent entirely upon the natural force of the mind acting on the body, utilized by suggestion. This is no delusion. It is simply a fact. To present this properly would require an extensive inquiry into psychology to familiarize ourselves with the working of the mind through brain and nervous system, and particularly into psychology of suggestion. But time will not permit. I refer you to Prof. James' work, of Harvard, two large volumes, as the best I know of while I content myself with a few suggestions on *Suggestion* in its special application to the cure of disease.

Now "suggestibility is a fundamental attribute of man's nature," and being fundamental we are all of us necessarily more or less suggestible, and perhaps may be made completely so under certain conditions. When we shall act as machines on sugges-

tions from within or without, no conscious mental supervision or control being had, at least apparently. This is mesmerism or hypnotism, or more correctly, *abnormal suggestibility*, and is the condition of the thousands of deluded followers of magnetic healers, divine healers, osteopaths, etc., etc., human beings temporarily bereft of reason and common sense, and yet for all that, in many cases physically benefitted by their insanity. There is a better way, which does not involve danger of permanent mental disability or any rupture of personal consciousness. To this we should apply ourselves. Thirty-six years ago, while practicing in Michigan, I was called to see an Indian maiden 18 years of age subject to epileptic fits, had been for years, was at the time in midst of one. I examined her carefully, heart, lungs, eyes, etc., etc. Following day the Indian chief called to get some medicine as directed. Reported his daughter came to in time and surprised them by saying "the doctor been to see me, and he cure me. Sure he cure me." Well, positively to my own knowledge, she never had another fit. Completely cured. How? By suggestions of her own mind, instigated by my close examination.

Two or three years since, after a curetage, the lady suffered considerable pain with some temperature, for which sedatives and warm douches were given without much, if any relief. Evening of third day found her suffering more intensely, enough to make us rather anxious. About 2 o'clock that night was called up to see her. Could hear her cries from pain when quite a distance from the house. With all my anxiety, I determined to see what suggestion would do for her. Gave a placebo, and quietly suggested relief from pain and sleep. Keeping these ideas before her mind for perhaps a half hour, insisting when she woke up, the pain and distress would not return again. Left her sound asleep. Morning call found she had slept soundly, was feeling free from pain and *well*, and so she remained from that time on.

Some time ago was called to a confinement case about 10 o'clock P. M. Indica-

tions favorable for delivery sometime during the night, but for some reason, I did not wish to stay and so suggested to the lady she would not be confined during the night. She was not ready, etc., etc. She had better resist her pains, go to sleep and it would all be right in the morning. This idea was impressed on her mind and talked to her until she went to sleep, and I went home. Next day was called, found she had slept well through the night. Nature had been quietly working in the case and in a short time she was delivered.

These, from my own experience, are offered to show not any mesmeric power, or magnetism, or *anything* but the power of the patient's mind on the body through suggestion pure and simple.

A case from Dr. Parkyn, of Chicago, a thoroughly educated regular M. D. may, perhaps, more forcibly present to your minds the point aimed at. Mrs. F., case of functional diabetes, had existed six years, during which she had suffered greatly from neuralgia, constipation, dysmenorrhea, melancholia, insomnia, great weakness, with constant micturition. Had been continually under treatment by physicians with no benefit as to cure. Coming under our care, *All medicines were discarded.* The neuralgia was removed the first treatment, the insomnia after the third, the constipation after the fourth, and the patient passed through an almost painless menstrual period. With regard to the diabetes, a few suggestive treatments put a check on that, and she rapidly gained in weight, became the very picture of health. Was restored perfectly *in a few weeks* after six years of suffering, and ingestion of untold quantities of drugs, by what? Nothing in the world but the force of her own mind under mental suggestion by Dr. Parkyn.

Now gentlemen, in closing, let me tell you what I have tried to do. 1st, To show that the mind in action is a great force, akin to, if not indetical *with* nerve force, electricity, heat and motion. 2d, It manifests its power in the physiological processes of life. 3d, It manifests its power, also, in the pathological processes. Therefore, it

may be potent for good or evil, according to circumstances—it is so—and by its virtues may be utilized by us *intelligently* in the cure of disease. And finally, *with force* it does not belong by right divine to mountebanks, quacks nor fools, but to the man of science who is capable of knowing he has a mind, and what to do with it.

THE SPANISH-AMERICAN WAR AS SEEN BY THE MILITARY SURGEON.*

BY GEO. E. HILGARD, BELLEVILLE.

Captain and Assistant Surgeon 4th Regiment Ill. Vol. Inf.

The Seventh Army Corps, of which our regiment was a part, not having been in an engagement with the enemy, the surgical aspect of the Spanish-American War, with the results of the modern projectiles as compared with those in use formerly, and all this entails, must be relegated to some one more fortunate than myself.

Our first rendezvous was at Camp Tanner, Springfield, Illinois. This was the camp of instruction, not only for the men and their officers, but also, and almost more important, for the medical staff. Each night a lecture on a given subject was delivered, followed by a general discussion. A cadaver was procured, and, after the evening's discourse or anatomical demonstration, an interesting operation would be performed by Dr. Senn, who is a master of surgery. The Illinois National Guard is very fortunate in having as the head of its medical department such a surgeon as Dr. Nicholas Senn, of Chicago. It was due to his untiring efforts and self-sacrifice that our sojourn there was of material benefit, especially to the younger members of the profession, among which I am numbered. The noble doctor was not destined to remain with us, as his ability soon procured him an advancement.

Each day one of the surgeons would be appointed as medical officer of the day. It

*Read at the Meeting of the Illinois Association of Army Surgeons, Chicago, April 10, 1900.

was his duty to inspect the various camps, mess houses, sinks, and general condition of the grounds. After a time the sale of pastries was forbidden, and then his most arduous duty was to be on guard for "pie-women," who would pass the sentinels notwithstanding all their vigilance.

An examination, both physical and mental, of the medical officers was soon held to determine who should be commissioned in the volunteer army. Much to their credit, the applicants, with but few exceptions, were successful. After this had been decided, came the physical examination of the soldiers. Having several regiments to inspect the surgeons were very busy for several days.

If at Camp Tanner more attention had been given the different medical reports that were to be rendered, and more knowledge concerning the keeping of records been diffused, much useless anxiety, worry, and labor would have been obviated. To a civilian physician nothing is more intricate and involves more puzzling features than the correct, unimpeachable manner in which reports were to be made and records kept. It was my lot to have this brought forcibly to mind late in my experience. True, this was part of the hospital steward's duty, but if he, a civilian too, desired aid from a superior officer and it could not be given him, where was the information to be obtained?

We had been in Camp Cuba Libre, Fla., whence we had repaired from Springfield, and where we had comparatively no sickness, only a few days, when I, with one of the hospital stewards, was ordered to the ambulance company, second division. This company was being organized by John G. Byrne, Assistant Surgeon, 2nd Ill. Vol. Inf. Here we had no medical work, except lecturing on "first aid," and drilling the men in the handling of the sick and injured. My first few days were spent in superintending the herding of about one hundred army mules that were continually breaking their fetters, and so caused us much exercise. Well do I remember one day that Dr. Byrne and I explored the sur-

rounding five miles of territory for a troublesome 2x4 donkey that had strayed during the night. By this episode, and the continued supervision of the animals, the M. D.'s of our names were soon remarked to be the abbreviations of "mule drivers."

Hardly had we become secure on the score of the mules, when several wagons, in pieces, were unloaded upon us. And now we had a more learned task to perform. 'Twas amusing to be asked where this and that nut and screw belonged. But of course, being physicians and surgeons, and having studied fractures and dislocations, we were not at a loss.

Then came the litter drills. Being the junior officer, I was detailed for this work. By dint of application to a manual I succeeded fairly well in this. It was also my fortune to be appointed judge-advocate of a garrison court martial that was in session over a month. This class of work is strictly legal, as you all know.

I remained with the ambulance company, free from material responsibility, for three months. Then what a change came in my fate. Suddenly I was ordered to return to the regiment. On my arrival the major surgeon was acting brigade surgeon, and the other assistant surgeon had secured a leave of absence and soon left with a sick train for the North. And this when the ill-health of the regiment had reached its acme. One of the stewards had early in his career been detailed to the medical supply depot. The second, a graduate in medicine, who had been with the regiment all this time, was taken ill and secured a furlough. The third, who had been with me at the ambulance company until a few days prior to my return, was all that was left of assistance. Of the two privates, one was discharged, and the other obtained a furlough. The remaining steward proved himself a wonder of endurance, knowledge and good cheer. Nothing was too much for him; he never complained. Not only did he fill prescriptions, treat minor ailments, make out requisitions, etc., but also kept all records. At this time the consolidated morning sick report averaged two hundred and fifty;

this including probably one hundred in the division hospital. Of those in camp the majority were able to travel to the dispensary for their treatment. But there were too many unable to, for one doctor to do them and himself justice. The desk work in itself was almost sufficient to employ one medical officer constantly; reports of all sorts, records, requisitions, applications for sick furloughs, etc.

Typhoid, usually atypical, and the malarial fevers were the scourge. Diarrhea and dysentery claimed their share of victims, though we suffered no death due to them.

The development and propagation of disease must be assigned to the following causes:

(1) The cooking, for the most part, was defective. Improper food caused much digestive derangement and consequent in-nutrition. Each company should have attached to it a good cook. The habit of detaching men to mess duty as a punishment is a very pernicious one. They are usually ignorant of the art, not having had experience before, and care not for the state of preparation if their main work is accomplished.

(2) The tents were too crowded; thus preventing such cleanliness as should be found within and without. And not enough attention was given to personal cleanliness.

(3) Then too the men were exposed to the stress of the weather.

(4) The habit the men had of buying all sorts of eatables from the vendors that frequented the camps was a very unhygienic procedure. This can be said of all soldiers. They know not what to eat nor the quantity to which they should limit themselves. After each pay day this fact became very apparent. It was then especially we were called upon to administer to cases of acute gastritis and intestinal colic.

(5) Probably some of the milk brought to camp was impure, as the neighborhood was unhealthy.

(6) The water was obtained from the city supply and was therefore considered

good. It was not analyzed to my knowledge.

(7) The soils upon which the camps were pitched were poor selections. They were in the marshes of a river. After heavy rains miniature lakes dotted the entire camp. In both camps innumerable canals were made to favor proper drainage of surface water. Especially was this true of the first camp, which was not as sandy as the second. This applies to the Florida camps. The condition of the soil favored the dissemination of the pathogenic micro-organisms. Naturally, living in this paludal atmosphere, malarial fevers were common.

In the first camp, the tub system of removing sewerage was used. Here typhoid fever had not gained a foothold. But at the second camp it held full sway. Sinks were dug and sand used to cover the evacuations. When the hole was filled it was covered, and another sunk in the near vicinity.

At the second camp typhoid fever was so prevalent that an order had been issued to us that cases presenting fever for seventy-two consecutive hours, that did not yield to quinine, were to be diagnosed as typhoid suspects and sent to the general hospital. This is simply related to show how very common typhoid was.

Sad to state, at this time the hospital proved inadequate for the numbers sent to it. Several times was I, during my incumbency as acting surgeon, notified to transfer only the worst cases, as there was not accommodation for all. This was very disheartening, but fortunately endured only a short while. This was in the month of September, 1898.

There being but one medical officer with the regiment, our colonel asked for assistance. Two contract surgeons were assigned us for temporary duty. One soon became ill and therefore was of little help. The other proved of inestimable value. The regiment was becoming so demoralized that something decisive had to be done. We were ordered to do provost duty in the city of Jacksonville. And now began the dis-

appearance of virulent diseases. True, we had several more deaths before we departed from this State; but they were all due to infection at the old camp.

Living thus in the city, with no more than two companies at a post, having excitement supplant the monotonous camp routine, proved almost a panacea.

From Florida we proceeded to Savannah, Ga.—still on provost duty. The command maintained its excellent health. A short time only had we been relieved from this pleasant duty when we were ordered to Cuba.

On the transport measles developed in the regiment that accompanied us. And this was the principal disease that effected our men during the first month's stay on the island. Before the epidemic was checked, probably fifty cases were reported, some escaping detection having it so mildly they did not care to complain. Of the patients, the majority claimed to have had it before.

During our three month's stay in Cuba, death invaded our ranks but once; a drowning.

It is a noteworthy fact that after our departure from Florida, where we had about thirty deaths, this in five months, the latter two of which proved more costly, the following seven months showed one death only, and that not from disease.

The ideal camp we had at Camp Columbia, Cuba. The natural drainage was perfect, the tents less crowded, and the men had gained much wisdom from their past experiences. The sewage was deposited in holes dug for the purpose. Each hour a squad, under command of the sanitary officer, would visit these sinks and cover them with a layer of lime and dirt; a carbolic acid solution being used as a disinfectant. The prisoners were compelled to maintain the cleanliness of the camp, all foreign matter being removed as soon as discovered. All stumps, trees, fences and walls were given a coat of whitewash. Lime was used under the tents, whose floors were raised a foot from the ground. And daily was every tent aired, the flaps being thrown wide open

and the sides rolled up. Each company was supplied with a Pasteur Germ-Proof Filter; it detailed a man whose exclusive duty it was to constantly have on hand a supply of filtered water, and who was responsible for this and the condition of the filter. A medical officer daily inspected these filters, and made weekly reports concerning their care and condition.

As regimental hospitals were permitted for a short time only, our observance of diseases of the more virulent types was limited to the initial stages and the diagnoses. Of the diseases encountered there was no end. As has been stated before, the malarial and intestinal diseases were the most prevalent. The venereal troubles with their complications naturally were extremely common. The vaccination of the regiment, both in the States and Cuba, produced some extreme cases of vaccinia. These were principally due to mixed infection by scratching, and premature removal of the aseptic covering. Several herniæ, some caused by service, but most undiscovered at the examination, were noted. These, it was remarked, occurred principally among the recruits later admitted. Defective teeth produced much pain and discomfort to some of the men. Several fractures were encountered. As foot gear is not made to individual measure, painful affections of the feet, due to ill-fitting shoes, were not rare. Among some of the other affections treated may be mentioned scarlet fever, parotitis, pneumonia, bronchitis, renal colic, catarrhal jaundice, and rheumatism. Though we experienced several cases of heat exhaustion, not one of true sunstroke was met with. In Cs'er's "Practice of Medicine" we find the following: "Guiteras has called attention to a form of fever occurring in the South, known as 'Florida Fever,' in the Carolines as 'Country Fever,' and in tropical countries as 'Fievre Inflammatoire.' The cases last for a variable time, and are mistaken for malarial or typhoid." But he believes them to be entirely distinct, and due to a prolonged action of high temperatures. He has called the condition a "continued thermic fever."

Were we mistaken in some of our diagnoses of malaria and typhoid?

Of the different branches of service, the medical department deserves the greatest praise. To it fell the most responsibility and labor. Its members were all conscientious, earnest men whose great pleasure it was to fulfill their duties. Every precaution was taken to insure good health. The drugs, instruments, and accessories, furnished were all of the best. Every reasonable request was granted. Requisitions were promptly allowed. Hospital accommodations, with a few days exception, were always ample and excellent. The innovation of female nurses was a boon to the afflicted.

The low mortality rate was a fitting tribute to knowledge, skill, untiring energy, and general efficiency of the medical department.

Before closing I desire to give a summary of my work: The field and staff were mustered into the United States service May 20th. The latter part of the month we were ordered to Tampa, Fla. Enroute our destination was changed to Jacksonville, Fla. About June 6th, I was assigned to the Ambulance Company, 2nd Division, 7th Army Corps. Remained on duty here until September 10th, when I was returned to the regiment, and acted as surgeon until October. Thenceforth I was with the command as assistant surgeon. The latter part of October we were sent to Savannah, Ga. January the 3d, we sailed for Cuba; there we remained until April. We departed from the island April 4th, landed at Port Tampa, and traveled then to Augusta, Ga., where we were mustered out, May 2d, 1899.

HISTORY OF OUR MEDICAL LAWS*

BY A. C. CORR, M. D., CARLINVILLE.

Mr. President, Brothers and Sisters in Medicine, I thank you for the honor conferred on me by inviting me to take a place

in your program on this occasion. And in doing so, I have to confess that I cannot do the subject full justice.

To give a full "History of the Medical Laws" of the State of Illinois, would require more talent than I possess, and more time than is at my disposal on this occasion. I confess to a feeling of diffidence when I see that I am confronted by a spirit of rivalry as to priority in the agitation that culminated in the creation of State Board of Health, and the procuring of a law Regulating the Practice of Medicine in the State.

Since I have been calling the attention of the profession, especially the membership of the State Society, to the origin of the State Board of Health, the Legislative Committee and their important relations to each other, I have been informed by three different and distinct parties that they were the original instigators of the movement that culminated in the creation of the State Board of Health, and the enactment of the Laws Regulating the Practice of Medicine.

I have not, however, deemed it worth while to go beyond the records of the Society to establish any claim to priority, as I was only striving to bring the attention of the organized profession of the State to realize that the Legislative Committee was created by the organized profession represented by the Society, and that it was instructed by the Society to procure the enactment of a law creating a State Board of Health, and to Regulate the Practice of Medicine.

I think I have shown elsewhere that these relations were so intimate and of such importance that they *ought* not to be so lightly regarded by either.

In doing this I may have mentioned with emphasis the names of some who were no more conspicuous than others.

In doing so I have only mentioned those who were so mentioned in the authenticated records of the Society.

Having done so I hope I shall have excited no *malaise* in anyone.

When I began to agitate the importance of the origin of the Legislative Committee and the State Board of Health, and their

*Read at Jacksonville, April 10, 1900. See minutes of meeting in this issue.

relations to each other and the present Society, it was in 1895, when in November I went before the Southern Illinois Medical Society, *then a rival Society*, with a fraternal delegates' certificate from the State Society, and the greetings of its President, Dr. Brower, when in my response to having the courtesies of that Society extended to me as a delegate from the State Society, I argued the importance of their Society becoming auxiliary, so as to give greater influence in *legislative matters* to our *Legislative Committee*.

As a result of that course and argument a resolution was passed at that meeting declaring that the Southern Illinois Medical Society is *auxiliary to the State Society*.

I was alone in this, and of my own suggestion. No other delegate of the State Society was present.

I was made a member of that Society at that meeting, and next year when the Society met in Centralia I read a paper, entitled, "The Claims of the State Society on the Local Auxiliary Societies and the Profession of the State," which claim I based on the importance of the Legislative Committee of the State Society and the Medical Laws it had procured.

At this meeting I met Dr. Kreider, and the late Dr. J. B. Hamilton, then Treasurer and Secretary of the State Society, on much the same mission.

In the second year following, 1897, in my Presidential address, if you recollect, or will take the time to read, you will find I further detailed the origin interdependent relations and importance of the Societies' Legislative Committee, in part, in these words:

"The question as to the Societies' needs, which I desire to bring most forcibly before you at this time, is the matter pertaining to the Legislative Committee.

"The nature and usefulness of this Committee seems to be a development, not yet perfect."

The nature and usefulness of this, now standing committee, can be best illustrated by giving a "History of Our Medical Laws," as suggested in your program.

If you note the preamble to the Constitution and By-Laws of the State Society, adopted at its organization, now fifty years ago, you will readily infer that many laws on the Statutes, not strictly medical, have had the influence of the organized medical profession in their adoption.

This preamble declares, "The objects are the organization of the profession of the State for its united influence on questions pertaining to *public charities, State asylums* and other institutions, and on all questions of a medical, sanitary, charitable or educational nature, and the procuring of such legislation as will reflect the views and aims of the medical profession, in relation thereto; and also to promote the scientific, social and professional interests for which medical societies are usually organized."

If this inference be allowed, and doubtless it should be, I could not give a history of a tithe of the philanthropic, charitable and educational legislation the organized medical profession of the State has promoted.

The first act I find reference to in transactions or in the Statutes that might be included in "our Medical Laws," and in accordance with the Preamble of Constitution and By-Laws of the State Society, is an "Act to create a Board of Commissioners of Public Charities," which went into effect April 9, 1869. This created a commission to superintend in a systematic way, all the State charities, asylums and penal institutions.

Its scope and usefulness, and your knowledge of it, render it unnecessary for me to comment on it further.

On July 1, 1874, an act went into force appropriating means and arranging a suitable building for the better care of the feeble minded children of the State.

This bill was recommended by the Illinois State Medical Society, and a committee was appointed at the suggestion of Dr. C. T. Wilbur, then a member of the Society and superintendent of a school for these unfortunates, which I think was carried on some time by the doctor in some temporary buildings in Jacksonville, under annual ap-

propriations for running expenses by the Legislature, prior to this act.

Then an appropriation and plans were made for the construction of the beautiful and commodious structure now located at Lincoln.

Next in order was the procuring of an act creating a State Board of Health, and one Regulating the Practice of Medicine in the State.

These two were enacted at the instigation of the State Society. When in 1876 it met in Urbana, Dr. H. S. Birney moved that a Legislative Committee be appointed to memorialize the Legislature on the subject of a State Board of Health, and the Regulation of the Practice of Medicine.

That committee consisted of Drs. E. W. Gray of Bloomington, Wm. W. Chambers of Charleston, S. H. Birney of Urbana, William Massa of Paris, and B. F. Haller of Vandalia, and on July 1, next year, '77, the two acts became a law.

There seems to have been a general unanimity of thought in regard to the necessity of these two laws, for others, not of the committee, were working to procure the same.

Drs. A. R. Small of Chicago, and W. J. Chenoweth of Decatur claim, under date of Feb. 29, 1900, that they were the originators of the "Medical Law" of Illinois, in that they caused, through Senator Jefferson Rainey of Belleville, the California law introduced into the Legislature, and that it, with slight modifications, became the law.

They evidently refer only to the Law Regulating the Practice of Medicine, as they say there were others at the Legislature, from Bloomington, striving to procure the passage of a law creating a Board of Health, with whom they combined and obtained the passage of the two—there being two laws pending at once. The one creating a State Board of Health and the other to Regulate the Practice of Medicine.

Dr. Silas Thompson Trowbridge of Decatur, President of the State Society in

'68-9, did much in the agitation outside, while the laws were pending.

See his auto-biography in lecture before the Ladies' Library Society, of Decatur, in which he also relates that he drafted a bill for a Board of Health and one to Regulate the Practice of Medicine, and had it introduced in the Legislature in 1867, ten years prior to the introduction of the law that was passed. Doubtless there was a great deal of outside influence brought to bear on the Legislature to procure their passage.

On June 1, 1885, was passed what was then called "The Anatomy Act," and entitled, "An act to promote the Science of Medicine, etc."

This is probably the only one of all "Our Medical Laws" that directly favored the medical profession, but not more than the public. It provides that all unclaimed bodies be placed in a committee's hands, to be distributed pro rata among the colleges. Prior to the passage of this act, all bodies for dissections had to be stolen from cemeteries, and every college had to maintain a *resurrectionist*, who, like the sharpshooter in the civil war, skulked around the college where he pleased. I think this bill did not originate in the State Society, but in the Chicago Medical Society.

I recollect, however, that I circulated a petition among the physicians and the citizens of Carlinville and Macoupin county, to secure its passage.

On July 1, 1893, was passed an act to revise the law in relation to the commitment and detention of lunatics.

Dr. E. P. Cook, in his Presidential address in 1879, recommended that a committee be appointed to memorialize the Legislature on this amendment, and a bill was read before the session and endorsed. But it took long and earnest agitation to procure the passage of the amendment, for it was not obtained, until as above stated, July 1, 1893. Prior to the passage of this amendatory act, all cases of insanity had to be arraigned before a court, by criminal processes and a jury of six men, empanelled to determine their insanity. It will ever be a matter of astonishment why the Legisla-

ture could not comprehend the justice of this law for so long a time—*fourteen years*.

I am not able, just now, to determine the time when the first committee was appointed to secure an act for an asylum for epileptics, as an epileptic colony, but several years ago I know, and I believe \$2,500 was appropriated for that purpose about two years ago. Dr. J. B. Maxwell of Mt. Carmel, a member of the now standing Legislative Committee, has made several reports to the Society relative to the progress of the work on this bill.

I believe some one is claiming the honor for the procuring of this appropriation, who is but recently a member of the State Society.

Now again, to the law which is uppermost in all your minds. The one regulating the Practice of Medicine, which after being passed in 1877, was revised in 1887, and again at the last session of the Legislature, in 1899.

In the effort before the last Legislature it was intended to secure the creation of another Board, to make the examinations of candidates wishing to practice medicine in the State. This feature of the bill presented by the committee failed, as you all know, and a fairly good bill was passed to take the place of the old one, and in this the ardent labors of Drs. J. W. Pettit, H. N. Moyer and G. N. Kreider are to be appreciated.

Its merits and demerits I will not discuss, as that is provided for elsewhere in the program, but I must say that the conditions which confronted the committee were unique, and the committee will long remember that it was well nigh abandoned by the profession, especially the membership of the State Society. In my judgment I feel that the committee did commendable work, and as I have said elsewhere, it is not to be held responsible for the imperfections of the law, for after a bill is introduced and referred, it is very little subject to outside control, only in an advisory way.

Dr. Vincent Cole, formerly of Wisconsin, has located in Rockford.

THE RELATION OF OUR LAWS TO MEDICAL EDUCATION AND PRACTICE.

BY E. M. ECKARD, M. D., PEORIA.

Regarding the efficiency of our (Illinois) laws relating to medical education, I have little to say. My views are very decided on that point, and to express them, necessitates plain speaking. The fact that the law permits one class of men to obtain a license after a few month's study of bone and muscles, the said license permitting them to treat all manner of disease from a bone standpoint; while it requires another class to complete a study of not less than three years' duration and to master a large number of branches in order to obtain a license apparently no greater in its scope, appears to me ridiculous and plainly an injustice. The law might prove always effectual provided a courageous board of officers, such as the present incumbents, were appointed to conduct the examination, but how about appointments which carry with them political domination? For instance: Mr. Politician might say to Mr. Governor, "Here is my friend, Mr. Bonebreaker, who will shortly appear for examination before your State Board of Health. See that he is successful." Mr. Governor says to Mr. Board of Health, "Mr. Bonebreaker will appear before you for examination in that department of medicine called 'Shampooing.' Read well section 2 of the Medical Act, and see that he receives a license. A word to the wise is sufficient." Mr. Board of Health may not believe Mr. Bonebreaker efficient to practice medicine, but he gets a license which permits him to treat asthma, by making pressure on the cervical vertebrae with his thumb nail or locomotor ataxia by twisting the end of his patient's coccyx. He relieves all cases speedily—of their money.

The law is good enough to cut off such imposters as those who manipulate the so-called Weltmer system, and the State Board cannot license them from the fact that having no qualifications whatever, it is impossible to classify their "department" of med-

icine or surgery. Weltmer should have donned a religious cloak.

The legislature quailed before the onslaught of christian science, and gave them free and unlimited license to commit the deadly sin of omission, only limiting them to ethereal methods. Well may legislators and jurors quail before anything religious, however, for they fear a repetition of "Christ before Pilate," yet the sin of omission practiced by the christian scientists is a thousand times more deadly than that of commission practiced by the osteopath.

One of the last States to fall into line in passing medical laws was Michigan, and yet one of the rudimentary suggestions of the Michigan State Board of Health was, "That interests of life and health demand that children and persons too sick to be able to judge of the qualifications of those who are called to treat them, shall have protection against such quacks and charlatans"—meaning "christian scientists." If we cannot dispose of them altogether, something like this incorporated in our laws would do wonders for humanity. What we need is *a single high standard of scientific medical education for everybody*, and a Board of Health with the backbone to see that every applicant's qualifications meet the standard. Illinois has become old enough to do away with child's play.

The men appointed to execute health laws should determine properly such schools to be recognized, and power should be given them to revoke the charter of such institutions as failed to fulfil the standard set. This would do away with the various diploma mills in Chicago and elsewhere, which are an insult to the profession.

The determination of standing of medical colleges should be left to none but medical men. The Supreme Court of Pennsylvania on being appealed to for decision as to the standing of a certain institution, replied: "We have no more right to decide on the degree of medical science in the applicant than on the piety of a congregation or any other religious sect which applies to us to certify to a proposed charter of incorporation; and this might place the de-

gree of Doctor of Medicine in a situation somewhat similar to what was threatened by a celebrated minister of France, who said, 'He would create so many Dukes, that it would be a shame not to be a duke and no honor to be a duke.' " Our requirements should at least be as high as other less civilized countries. Even Spain requires a course of four years and a rigid examination; Portugal five years and reading publicly of a thesis; France four years; Germany four and one-half years and a good preliminary training; England five years; Turkey six years, and poor, ignorant Russia eight years, and besides that, every applicant for a medical degree must have obtained the degree A. B.

In dealing with the relation of our laws to the practice of medicine, we should consider, primarily, that "Every man may use his own property or knowledge to his own advantage so long as it does not injure another." Therein lies the fundamental principles of social government. Government is indeed a social compact. Society does away with the struggle which animates the breasts of animals. Society grants equal rights to all. I give up my liberty to murder you and you give up your liberty to murder me. Violation of my rights or your rights should constitute an offense against the law. Therefore, if the law allows me a license to follow a certain vocation or profession, and I use such a right to the injury or depletion of my fellow-men, that same law should take away the right from me. Before I go farther, I want to say the present Illinois law has many good points. It is defective through no fault of ours, but due to depraved opposition. I have respect for it and its advocates. In fact, faith in its efficiency and power to moderate present evils was so great that we took steps to see it enforced. When we began its enforcement in our quack-bedridden city of Peoria, it brought down a landslide of abuse and personal slander from a back-biting, quack-supported newspaper of Peoria.

These attacks teach a man where his friends are. Suffice it to say, however, that with the aid of a conscientious young at-

torney and the support of the city Medical Society, we have succeeded in ridding our city of all our quacks and irregulars, except those advertisers who hold diplomas and one osteopath, who in some way obtained a license from the State Board.

The whole earth fairly teems with the advertisements of these fellows and their remedies. The bill-boards glow like Italian sunsets; whole editions of dailies, weeklies and monthlies are turned into bulletins for them. We have remedies from the animal, vegetable and mineral kingdom. From the far East and distant South come remedies which in the hands of the charlatans cure disease in ten minutes by the watch. The watch stops usually before the ten minutes are up, however, but not before money has changed hands. Cures by magnetism, electricity, faith, christian science, mental culture, alleopathy, homeopathy, hydropathy, boneopathy and mudopathy. Cures! cures! are everywhere, and yet disease and illness go stalking through the land. Dr. Ratte discovers a cure for consumption; gold-begoggled and fool-begotten newspapers herald his self-imagined lies throughout the length and breadth of the land, and many poor sufferers draw near and deposit their hardened gold in his coffers, and retire poorer but rarely wiser men. Disappointment and ruin follow this awful foolhardiness, and yet a people who brag of their practical good sense continue to tolerate it.

Aided from time to time by personal briefs prepared by the State's lawyer during the prosecution of the unlicensed Peoria, I have gathered a few data and have recognized some deficiencies and other creditable points in medical law, as it at present relates to the practice of medicine and surgery.

That part of section 3, providing that none may call themselves doctors except those who have a full license, having fulfilled the highest requirement of the law, separates the black sheep from the white, as far as name separates them. It is good. The section as a whole is, however, a hoax, merely affording a loop-hole for the non-

qualified to become legalized humbugs, under the name of osteopaths, etc.

Section 6 is first-rate, only the State Board has not, to my knowledge, tested its power, or if they have done so, probably suffered so much abuse from the newspapers that they found it more pleasant to desist. I will read for your delectation an advertisement which, in my opinion, clearly comes within this section of the law (Vance M. Powell in the *Star*). If this does not constitute unprofessional conduct and show false misrepresentation, then my interpretation of what constitutes unprofessional conduct is sadly at fault.

Section 7 reads in part, "This act shall not apply to any person who ministers to or treats the sick or suffering by mental or spiritual means, without the use of any drug or material remedy." Now this means that the minute the christian scientist places his hand on the patient in a mechanical way, or to assist nature in any way, he or she becomes amenable to the law. So far so good; but how about children of tender age and those persons too sick to be able to judge of the qualities of their treatment?

This clause, if admitted at all, should be amended to cover this vital point. Children should be of such an age and sufficient intelligence to decide for themselves whether they need hocus-pocus or medical attention. It is our duty to protect them. The other fanatics who desire to throw aside the first law of nature are to be pitied, but really do not deserve our attention.

Section 8 is good. It forces those humbugs who go about the country selling colored waters for medicinal purposes to pay dearly for their deception. It is an effectual damper in most cases. It should likewise require each patent medicine concern or advertising doctor to pay \$100 per month for each agent sent out to solicit patronage.

The law should more definitely define what constitutes practicing under another physician. Men and women go about the country asking questions from a prepared formula, and report to a licensee in the city, who sends them medicine to cover the case.

This is dangerous to the public health, and should be stopped.

A point of constitutionality was raised against this section, declaring that the point covered was not incorporated in the "Title to the Act."

Article IV. paragraph 13, of Illinois constitution, says: "No act shall embrace more than one subject, and that shall be expressed in the title." Mr. Justice Shope rendered a decision on this point, making it sufficient under the general head of medicine. It was also argued in this manner that as no instruments or medicines were used, the "Title to the Act" did not cover the "profession of Osteopathy." The judge held that the act was not restricted to any particular methods. The only way the osteopath gets around the act now is to appear before the Board claiming to practice a particular system or branch of medicine. His branch soon becomes a tree after he has hoodwinked (?) the State Board. This part of the act was well intended no doubt, but as matters stand, after a license is once obtained, it is a hard matter to take it up again. A yearly renewal of license would be excellent. It would put all irregulars on the defensive and render the State Board independent of examination fees. It is just as reasonable for a man to make a specialty of treating nervous diseases with medicines without first having taken a regular course, as for the osteopath to treat all diseases by rubbing and twisting with no course at all, and yet the law would not allow the former. The Legislature is not denied the power to make laws to regulate the practice of medicine. We read, "The police power is that power of the State which enables it to promote the health, comfort, etc., of society." It is broad and far-reaching. "In the profession of medicine, as in that of law, so great is the necessity for special qualifications, and so injurious are the consequences that are likely to result from want of it, that the power of the Legislature to prescribe such reasonable conditions as are calculated to exclude from the profession those who are unfitted to discharge its duties cannot be doubted." The object of the law

should be to protect the afflicted from the pretensions of the ignorant and avaricious, and its provisions should not be limited to those who follow beaten paths and established usages, but all pretending should be qualified to deal with disease in all its forms, and any department which they might later elect would be intelligently filled. The provisions of the law should render it effective against pretensions, based upon ignorance on the one hand and credulity on the other. The powers of the Board appointed to administer the law should bear a close analogy to school examiners, who have power to revoke licenses for any good cause. A good cause should consist in misstatements and false representation, such as are used by advertising quacks. From the truth we nor the public have anything to fear. There should be a particular statement somewhere as to what constitutes unprofessional conduct.

The duty of prosecution comes clearly under the jurisdiction of the State's attorney, but as they are notoriously delinquent in the discharge of their duty, and will prosecute no one until actually compelled by public clamor; it is a wise provision which provides for a special attorney being appointed. The State's attorney in Peoria endeavored to quash cases brought under the medical law; failing in this he went so far as to defend parties to the suit, but was defeated at every point. I reiterate that the proposed yearly renewal of licenses for a fee of 50 cents is excellent, and would supply the State Board with sufficient funds to carry their work to success and render them independent of the Legislature. We will find it much more easy to get proper laws if we touch not the pockets of the legislators or their constituents.

In summing up, we find that the law should require:

1. A high standard for all. No exceptions.
2. A perfect definition of the "Practice of Medicine."
3. A perfect definition of unprofessional conduct.
4. A yearly renewal of licences.

5. Appointees of the State Board free from political bias.

6. Definite provision for the appointment of attorneys to prosecute violators.

7. The recognition or exemption of no particular school or method, but efficient medical knowledge for all.

We, as honorable members of a noble profession, should see that the matter is presented to the Legislature in its proper light.

EFFICIENCY OF OUR HEALTH LAWS.*

BY S. T. HURST, M. D., GREENVIEW.

After looking over our laws of 1877 to 1899, I notice many changes. The first law was deficient and lenient to under-graduates, with a ten-year clause, and yet it did much good and elevated the average standard of the profession. The itinerant license clause was pernicious, and it seems we can never get rid of it. The discretionary power seemed ample, and yet for some reason, energetic though the Board was, quackery of this kind flourished. Palpable frauds were hunted down, prosecuted and many were driven out. This law stood the test of the courts, but the Board never had the united support of the legitimate profession in the State. This Board enforced more general vaccination than I have since seen. Rivalry between, and increase of medical colleges, with an ever increasing political influence, and apathy on the part of the people generally, brought about the necessity for a better law, and consequently at every State Society meeting in Illinois we devote much time to this subject. So far we have made since 1877 but little advancement. The "Cheap John" medical colleges have multiplied, and the irregular and disreputable class of practitioners have increased, and I think many such graduates have found their way not only into practice in the State, but into our local Societies and the State Society as well. If they are legally regis-

tered, and apply, they will probably get in all right.

The object of medical practice laws are to prevent all or any from the practice of medicine who are unqualified or dishonorable in character or ethics. Our laws now and previously are not extensive, clear and restrictive enough. If we can enact a law and enforce it, that shall require every applicant for registration to undergo an examination, fair and rigid, by a competent examining board before beginning practice, we should be in a fair way to "kingdom come" in the healing art. But it is a fact much as we deplore it, we are well along in the direction of reducing the hitherto profession of medicine to the level of the trades or callings. The physician is becoming more and more a business man, and we are drifting away from the code of ethics, and everyone to be his own judge of his conduct, and most if not all of our Medical Societies have members who disregard the time honored code. This condition, in my opinion, will grow in our profession until the great influence over the laity once held by the profession is reduced to the level of the merchant or mechanic, if indeed we have not already reached it. If our laws cannot be so constructed and enforced as to hold the licensed or certificated physicians within the rules of the code, we are surely destined to become a trade and not a profession. Then we shall need but have a law that will insure good acquirement in the science of medicine and allow morals to take care of themselves. This condition now largely exists, but is noticed only in extreme cases. The ranks are being recruited annually and liberally. More schemes and devices must be found to find place and earn or make a livelihood. One way to do this is to locate, and either join church or fall in with saloon rounders, or perhaps join a lodge; in other cases manage to get on the teaching force of a medical college, all of which means one may more quickly become self-sustaining. Now I think we are rapidly approaching the time when we shall have no code of ethics, simply because it will not be needed in our business. The

*Read at Jacksonville April 12, 1900, See minutes of meeting in this issue.

public vender of nostrums, "magnetic healer," faith cure fetich, christian science and osteopathic fadist can all come on equal footing before a competent examining board, and if he can successfully demonstrate his scientific attainment in all the learning necessary to a thorough knowledge of medicine, obtain license to practice, and thus become honorable in his calling. But if he fail in the rigid examination, he would seek greener pastures. I have wondered if Illinois could not, after such an ordeal for everyone who is in some way engaged in the healing art, or pretends to be, passed we could not furnish of the surplus, enough to supply the Philippines with a doctor in every community. The laity generally know but little or nothing of our medical or health laws; no newspaper has ever championed the cause. The people are an important party in the case. We have so far failed to reach and inform them, and so we are acting as wards of the people without their consent. And further, it appears that some of our court judges have a very limited idea of any difference between expert scientific testimony and that of a common witness; and there seems to be good reason to believe that if we are ever to have efficient laws, we must begin at the bottom and establish a legal medical standard, and square, and line, and hew to it. Again our present law allows, I believe, a salary to no member of the Board except the Secretary.

No wonder Dr. Moyer said, in urging Dr. Webster for a vacancy on the Board, (Ill. Med. Jour. Jan., 1900), that "the position was purely honorary." We cannot reasonably expect an efficient Board who serve without pay. So finally I conclude.

Our laws are insufficient in that an examination does not apply to all alike.

2. They do not prevent quackery, but instead take from each itinerant a hundred dollars per month, and the Board or funds of State profit by the business.

3. They do not prevent the forementioned frauds and fads from treating the sick and ailing, provided they use no medicines.

4. Because there are already licensed a great number who ethically are unworthy, though some of them may be able men, in high positions.

5. They do not provide against removal from the Board by a whimsical or capricious executive.

6. And greatest of all, our medical laws are not understood by the common people, who are and always will be the backbone of all law in a republican form of government.

Desiring a free discussion of all the subdivisions of our topics here to-day, I have hastily penciled these notes to aid in the direction of the uplift to the medical profession in our State.

EFFICIENCY OF OUR HEALTH LAWS.*

BY H. W. CHAPMAN, M. D., WHITEHALL.

I shall open the consideration of this subject by quoting from an article in The Forum of February, 1899, by Dr. Wyman, Surgeon General of the United States Marine Hospital Service. He says: "Until 1893 there was properly speaking no national system of quarantine. All previous legislation had required only that assistance should be given State or local quarantines; and each State and locality had its own quarantine requirements, some good, some bad; some made strict enough to keep out disease, and others purposely weak, to attract, as it were, commerce to a more favoring port. At least half a dozen conventions were held by State health authorities, both before and after the war of the rebellion, to bring about uniformity; but all efforts failed until Congress enacted the law of 1893. This was a great advance in national quarantine, and under its provisions regulations have been promulgated. But the law requires a demonstration of inefficiency of management on the part of the local authorities, before the national government can assume control at a given port. This

*Read at Jacksonville, April 12, 1900. See minutes of meeting in this issue.

demonstration of inefficiency is precisely what should not be allowed. The law requires the Government to aid State and local authorities in the execution of their own regulations, which are sometimes unwise. It should require the local authorities to aid in the execution of the Government regulations.

In reference to an act amending this law, he says: "This bill provides also, that during yellow fever epidemics the President may prohibit travel and traffic, except under safeguards imposed by national authority." It also "grants authority for travel and traffic after application of the necessary sanitary measures."

Again in speaking of foreign ports: "In times of danger, medical officers of the Marine Hospital Service are detailed to serve in the office of the consul to enforce the Governmental health regulations, and immigrants arriving on this side are by law required to be examined by the medical officers of the Marine Hospital Service to prevent their bringing contagious diseases."

The Marine Hospital thus constitutes a National Health Board, probably more efficient than any other, as its officers are more permanent.

The law establishing our State Board of Health, briefly clothes it with plenary power to establish such rules and regulations as it may deem necessary from a sanitary point of view, and in case of epidemics to establish an efficient quarantine; and clothes it with all the power of the State to enforce these regulations.

Boards of Health of cities and villages are appointed and their duties prescribed by the city council, and the full power of the municipality is delegated to it to enforce its edicts.

According to a recent decision of the Supreme Court of the State of Rhode Island, there can be no appeal from any requirements of a local Board of Health.

It also provides for the inspection of all public buildings and tenement houses in cities of 50,000 and over; as to construction, ventilation, air capacity and plumbing.

It will be seen that on the ability, judgment and integrity of the individuals composing these Boards of Health, depends the wisdom and beneficial character of the rules and regulations adopted, as well as the efficiency of their enforcement.

The efficiency of a good law is always dependent upon its enforcement. The rules and regulations established by such Boards can be amended, abolished or allowed to lapse into innocuous desuetude, at the pleasure of the creating power, thus giving an element of elasticity that should cause the highest amount of efficiency, without working the individual hardships of an inflexible statute.

As to who shall compose these Boards, the statute is silent; but in all cases it is safe to assume that they are the creatures of politics.

So far as my own observation enables me to judge, they are usually chosen from among the members of the city council, and are almost invariably men of no knowledge of sanitary requirements. It is true that it sometimes happens that they have the idea that cleanliness is desirable, and fortunately this goes a great way. But some men's idea of cleanliness is governed entirely by their senses of sight and smell. If the source of offense is beyond reach in this manner, they assume it does not exist.

Now, the truth is, both these senses may be grossly offended without the slightest danger to health, and both may be carried around with great enjoyment in place of great danger to health.

In all of the smaller cities where well water is used for drinking purposes, cess pools flooded from roofs where the water is designed to soak away into the earth, smaller excavations which when full are covered with earth, and the house over it moved to a new excavation, as is so frequently practiced, pollute the earth and the water going to wells. The establishment of water closets with individual, and probably illy constructed drains, emptying into some near by stream or gully, are sources of great danger and should be prohibited.

In such small cities and towns every out house should have an excavation of sufficient size to contain the family's excrement for one year; this should be bricked up and cemented water tight; every spring at the city's expense and under direction of the local health officers, these vaults should be cleaned out, the contents carried to a remote place where a sufficient excavation had been made, there mixed with earth and lime and allowed to remain undisturbed for a year or more, when it could be taken out and used for fertilizer without danger or offence, and greatly to the advantage of growing crops. By this means the subsoil in the towns would be kept pure, and likewise the water going into the wells.

A state law that permits the turning of the sewage of a great city into a water course, and worse, reversing the current of a river in order to accomplish this, thereby endangering the health and lives of thousands of its citizens, besides those of other states, is criminal.

In the matter of prevention of contagious diseases, city ordinances and rules of health boards, usually look tolerably well on paper, but to enforce these provisions is another matter.

The average American citizen is very willing to be protected from the contagion of his neighbor, but when it comes to protecting the neighbor from his contagion, that is an entirely different matter, and he is very loath to have his children excluded from the public schools even for a short period, and the physician who enforces this quarantine is not apt to increase his popularity thereby. In mild cases of diphtheria, scarlatina and variola, diseases which are very frequently called by other names by the attending physician at the commencement of epidemics, also when the attendant chooses to regard membranous croup as non contagious, there is usually ample opportunity for the spread of these diseases among the susceptible.

A case illustrating the aversion of the average American citizen to being incon-

venienced for the benefit of others, is well impressed upon my mind.

A first case of diphtheria occurring on a certain season proved fatal. It was very easy to quarantine that family, and secure an efficient disinfection of the premises, as there were other children in the same family, and they escaped.

The next case was very mild and was a man, the father of a large family of young children. He was confined to the bed only a few days. I promptly excluded his children from the school, and when fully recovered directed him how to disinfect his house. He thought that unnecessary and neglected to do so.

Soon after the children of this family were allowed to return to school, they began dropping out one at a time for a few days each, and then returning to school, showing evidences of having been sick, until it had gone through the whole family.

About this time my own little girl was taken with diphtheria and came very near dying. My boy, a few years younger, was taken with the same disease, but had it in a very mild form.

During the illness of my daughter, this man came to me, frankly admitting that his children had all been having sore throats, with the same white patches (his wife said) as were in his throat when I had attended him.

He had not consulted me about his children, for he well knew I would exclude them all from school; in fact, they had had no physician, but fearing my daughter would die, his conscience reproached him and he came to express regret for not having heeded my advice.

I think it will stand as a fact, that the chief difficulty in the way of enforcing all health regulations, is the opposition of the people who are to be benefitted thereby.

The same is probably true of efforts to regulate the practice of medicine. A careful selection of the material of which to make our health boards, would seem to be of the first importance; after that we must have an increased amount of intelligence

among the people comprising a community, and above all, an absence of selfishness in the individual, with an earnest desire on his part to do that which will promote the greatest amount of good for others; but this is all that is required to make Heaven.

AMERICAN MEDICAL ASSOCIATION.

Will meet in Atlantic City, N. J., June 5, 1900, and I. S. M. S. delegates elected at this meeting. The rate will not be more, and likely less, than one and one-third fare for the round trip, certificate plan. Those desiring to go on "Journal Special," from Chicago can leave Chicago Sunday afternoon at 1:30 on "Journal Special," without change, over the Pennsylvania Short Line, arriving at Atlantic City, Monday evening at 6 o'clock. Tickets and sleeping car reservations can be had of Dr. F. C. Greene, 46 Wabash Avenue, Chicago, Illinois.

NOTICE.

A volunteer paper will be read by Dr. A. Goldspohn, Chicago, on "Cases of Intestinal Obstruction after Vaginal Hysterectomy and after Pelvic Abscess," and also a volunteer paper by Dr. Richard Dewey, Wauwatosa, Wis., on "Mental Therapeutics in Nervous and Mental Diseases."

R. R. FARE.

The various Passenger Associations controlling lines to Springfield have granted a rate of one and one-third to members attending. This rate is secured on the condition that the attendance will be one hundred and that each member secures a certificate from the local ticket agent on going. Do not fail to secure this certificate which must be endorsed by the Secretary, and stamped by the joint agent who will be present the 16th and 17th.

WHY PEOPLE GO TO SPAS.—In an article in *Nature* Mr. Edgecombe gives an account of the action of baths on the human

system. He says the changes produced are mainly the result of changes that take place in the circulatory system by the thermal, chemical, or mechanical action of the baths. The blood pressure is markedly affected. Some procedures, such as the action of cold water or massage to the limbs, raising it, while others, such as dry or moist heat, lowering it. "An intelligent use of bathing as a therapeutic agent can so act on the circulatory system as to regulate the blood pressure, restore the normal mobility of the vessels, promote the interchange of tissue fluid, and profoundly modify nutrition."

SUBSTITUTION.

The Filipino soldier fell upon his knees. "O, Senor!" he cried. "Have you no mercy?"

Private Smith of the 'Steenth Volunteers, who had been a drug clerk at home, looked down upon him coldly.

"No," he replied, from sheer force of habit, "but I have something just as good."

Thereupon he gave it to him—in the neck.—Philadelphia Press.

SCHENK'S THEORY IN PRACTICE.

A Chicago chemist has been trying Schenk's rules for the production of sex, with what he considers a successful result. He and his wife desired a male child, and the expected infant's sex turned out accordingly. Considering the fact that the chances of this being the case were about 104 to 100 in the natural order of events, this case seems hardly conclusive, but it appears to have excited enough local interest to call in the reporters and bring out one or two interviews with physicians, who are judiciously noncommittal. If important succession or even dynastic contingencies depended on this birth, it might have received less attention, and perhaps we may consider it an evidence, gratifying rather than otherwise, of the popular interest in a scientific theory.—Journal A. M. A.

The Illinois Medical Journal

PUBLISHED MONTHLY.

Official Organ of the Illinois State Medical Society.

Committee on Publication:

E. W. WEIS, M. D., Chairman, Ottawa.

H. N. MOYER, M. D., Chicago.

G. N. KREIDER, M. D., Springfield.

All communications should be addressed to E. W. WEIS, Secretary, Ottawa, Ill.

All remittances for subscriptions should be sent to Dr. G. N. Kreider, 522 Capitol Ave., Springfield, Ill.

The Society does not assume responsibility for any statements or opinions published in this journal.

Entered at the Postoffice at Springfield, Ill., as second-class matter.

Springfield, Ill., May, 1900.

NOTICE.

Through a misapprehension the date of the forthcoming meeting was published May 22d, 23d and 24th, and some of the stationery used by the officers was also erroneously dated. Note the fact that *the date is May 15th, 16th and 17th.*

ORGANIZATION.

A word about the preliminary meeting called by Dr. Pettit for May 14th. It is earnestly desired that the attendance be large and representative. The object of this meeting is to devise plans for better organization, which is the crying need of the profession.

The following from the Philadelphia Medical Journal so clearly states the case, we quote at length:

"It may be that we shall be obliged to wander for a few years longer in the desert of disorganization, but it is fair to predict, that early in the twentieth century a Moses will be found who will lead the profession of this State into the promised land of union and strength. That this consummation is one devoutly to be hoped for is shown by the

recent statement of a high official in the local government, who said recently in my presence, at a public dinner, that doctors, in his opinion, had no influence. It has been a frequent remark among the members of our Legislature, that if the doctors would only agree on almost any measure, it would be quickly made a law, but their proverbial lack of harmony made legislators backward about advocating or passing medical bills coming before them for consideration.

"Let us first close the breaches in our own ranks, and pull together during the coming years for the common good in our national, State and county associations, making it known that all educated and reputable physicians, whether or not they hold to a dogma, are welcome to join our ranks; then will we regain the influence and respect which, during these years of dissention, we have largely lost. The famous Musketeers, of Dumas, would have accomplished but little had they not adopted, and lived up to their motto, of 'all for one, and one for all.' Let us hope that when the time has arrived for all educated physicians in this State to join hands, the motto of the larger and re-organized society may be, 'the profession for the individual practitioner, and the individual practitioner for the profession.'" P.

COME!

The forthcoming meeting, which convenes the 15th inst. at Springfield, presents special inducements for attendance by the members of the medical profession of Illinois.

This marks the half century milestone in the life of the Society, and at no time in its history has the interest of the profession generally or of its members in particular been so pronounced as at present.

An extraordinary effort has been put forth by the profession of Springfield, and

the Committee of Arrangements has assiduously striven to make this the Jubilee Meeting a memorable one.

The officers of the Society have labored hard and eagerly to present a scientific program that will prove of great benefit, and that thereby everyone in attendance will carry home with him the knowledge gained that will more than compensate him for the time and money spent.

The special Jubilee features will be confined to the after-dinner talks on Wednesday evening, so that there will be no interference with the scientific and business portions of the meeting. And at this post-prandial feast, think of the pleasure of listening to those grand old pioneers who have labored so faithfully in the ranks—Boal, Davis, Edmunds, Ingals, Thompson, Hollister and Cook. Boal and Thompson are the only ones left of the original few who met and organized this Society fifty years ago. Of the vicissitudes and hardships encountered in going to that meeting they will tell us. The others will give us some of their experiences and reminiscences that will be interesting and profitable.

Come! Every doctor who has the love of the medical profession implanted in his heart should come, and by our presence show these stalwarts that we honor and love them for their devotion to medicine. W.

PERSONALS.

Prof. N. Senn will attend the meeting and take an active part in the discussions occurring in the surgical section.

A very interesting exhibition will be given by Dr. L. Blake Baldwin, of Chicago. Stereoptican views of colored photography in skin diseases. This exhibition will be in the Sunday school room of the First Methodist church, Wednesday, May 16th, at 5:30 P. M.

PROGRAM.

ORDER OF PROCEEDINGS.

FIRST DAY—TUESDAY MORNING, 10 A. M.

I—Call to order by the President,
H. N. Moyer, Chicago.

II—Invocation,
Rev. Jay Elwood Lynn, Springfield.

III—Address of Welcome,
Lt. Gov. W. A. Northcott.

IV—Response by the President.

V—Report of the Executive Committee,
The President (ex-officio) Chairman.

VI—Report of Committee of Arrangements,
E. P. Bartlett, Chairman.

VII—Report of Committee on Registration,
George N. Kreider, Chairman.

VIII—Miscellaneous Business, Communications.

IX—10:15 a. m. Call to order of Section One.

X—Address, Papers and Discussions.

FIRST DAY—AFTERNOON

XI—12:30 p. m. Adjournment.

XII—1:30 p. m. Call to order. Miscellaneous Business.

XIII—2:00 p. m. Call to order of Section One to resume program.

XIV—Report of Committees.

XV—6:00 p. m. Adjournment of general session after announcements by President and others.

FIRST DAY—EVENING.

At the Christian Church.

XVI—8:00 p. m. Call to order by the First Vice-President, J. T. McAnally, Carbondale.

XVII—Address of the President, "Tendencies of Modern Medicine."

H. N. Moyer, Chicago.

XVIII—Address of Section Three,
A. C. Cotton, Chicago.

XIX—Announcements, etc. Adjournment.

SECOND DAY—WEDNESDAY MORNING

I—8:30 a. m. Call to order by President.

II—Announcements, Communications, etc.

III—Announcements of the Members of the Nominating Committee.

IV—Reports of Officers and Standing Committees—

(1) Committee on Publication,
Edmund W. Weis, Ottawa, Chairman.

(2) The Treasurer's Report,
George N. Kreider, Springfield.

(3) Committee on Medical Societies,
C. W. Hall, Kewanee.

(4) Committee on Medical Legislation,
J. W. Pettit, Ottawa.

(5) Committee on Necrology and Biography,
John H. Hollister, Chicago, Chairman.

(6) Committee on Society History,
Robert Boal, Lacon, Chairman.

(7) Auditing Committee,
J. T. McAnally, Carbondale, Chairman.

V—9:00 a. m. Call to order of Section Two.

VI—12:30 p. m. Adjournment.

SECOND DAY—AFTERNOON

VII—1:30 p. m. Call to order for the Continuance of Section Two.

VIII—6:00 p. m. Adjournment in general session.

SECOND DAY—EVENING.

At the Parlors of the Leland Hotel.

IX—7:15 p. m. Reception and Annual Dinner,
Jubilee Features, Toasts and Responses.

THIRD DAY—THURSDAY MORNING

I—8:30 a. m. Call to Order.

II—Miscellaneous Business.

III—Report of Committee on Nominations.

IV—9:30 a. m. Call to order for the Continuation
of Section Two.

V—11:00 a. m. Call to order of Section Three.

VI—12:30 p. m. Adjournment.

VII—1:30 p. m. Call to order for the Completion
of Section Three.

VIII—Report of Standing Committees, continued.

IX—Reports of Special Committees.

X—Unfinished and Miscellaneous Business.

XI—Induction of the President-elect.

XII—6:00 p. m. Final Adjournment.

PROGRAM

ILLINOIS STATE MEDICAL SOCIETY

SECTION ONE.

Practice of Medicine, Medical Specialties, Materia Medica and Therapeutics.

Chairman.....H. C. Mitchell, Carbondale

Secretary.....Charles D. Center, Quincy

Address, A. C. Corr, Carlinville.

“Medicine, or Surgery; Are They Separable? If
Not, Which is the Science, Which
the Specialty?”

1. Chronic Gastritis,
Joseph Brayshaw, Berlin
2. Chorea, with Report of a Case,
D. M. Knapp, Mendon
3. Myxedema, with Report of Cases,
Frank Billings, Chicago
4. Our Milk Supply; Some Observations at
Home and Abroad,
S. E. Munson, Springfield
5. Typhoid Fever in Southern Illinois,
Ford S. Dodds, Anna
6. Nephritis, with Report of Three Cases,
J. W. Kelly, Springfield
7. Concerning the Simulation of Abdominal
Diseases by Pleurisy,
Jas. B. Herrick, Chicago
8. Is Pneumonia Contagious?
J. T. McAnally, Carbondale
9. Pneumonia and Its Treatment,
J. N. Black, Clayton
10. On the Evils Resulting from the Naming of
Diseases for Individuals,
N. S. Davis, Sr., Chicago
11. Diagnosis of Tumors of the Spinal Cord and
Its Membranes,
F. P. Norbury, Jacksonville
12. Cerebral Palsies of Childhood,
J. C. Gill, Chicago
13. Every Day Headaches,
Hugh T. Patrick, Chicago
14. Nature and Treatment of Locomotor Ataxia,
Elbert Wing, Chicago
15. California as a Health Resort,
John H. Hollister, Chicago

16. Have We Got the Smallpox?
H. C. Mitchell, Carbondale
17. A New Treatment of the Opium Habit,
Archibald Church, Chicago
18. Complications and Sequelæ of Scarlet
Fever,
M. S. Marcy, Peoria
19. Middle Ear Massage,
James B. Taylor, Bloomington
20. Rheumatic Diseases of the Eye,
H. W. Woodruff, Joliet
21. The Imbibition of Water in Relation to
Some Forms of Disease,
W. T. Moffitt, Williamsville
22. Chronic Diarrhœa in the Aged,
W. L. Irwin, Plymouth
23. Chylous Ascites; Report of Cases,
R. J. Christie, Jr., Quincy
24. Anæsthetics,
W. H. Maley, Galesburg
25. Anomolies and Monstrosities,
J. N. Nelms, Taylorville
26. Sepsis,
Francis Reder, St. Louis, Mo
27. Smallpox; Its Differential Diagnosis,
J. C. Sullivan, Cairo
28. The Increase of Paresis,
Samuel Dodds, Anna
29. Leukæmia and Pseudo-Splenic Leukæmia,
E. J. Brown, Decatur

SECTION TWO.

Surgery, Surgical Specialties and Obstetrics.

Chairman.....Denslow Lewis, Chicago
Secretary.....Carl E. Black, Jacksonville

Obstetric Symposium.

Address—J. Clarence Webster, Chicago.
“The Pathology of Delivery.”

- (a) The Application of the Forceps,
J. E. Allaben, Rockford
- (b) The Technique of Version,
J. F. Percy, Galesburg
- (c) The Management of Impacted Cases,
Henry F. Lewis, Chicago
- (d) The Mutilating Operations,
C. S. Bacon, Chicago
- (e) Symphyseotomy,
G. N. Kreider, Springfield
- (f) Cæsarean Section and Porro Operations,
C. D. Reed, Chicago
1. The Treatment of Appendicitis by Perineal
Incision in Males and Vaginal Incision in
Females,
E. M. Sutton, Peoria
2. Some Interesting Details Regarding Septic
Diseases of Women,
F. Henrotin, Chicago
3. The Treatment of Ankle Sprains,
E. H. Ochsner, Chicago
4. Gall Stones, J. W. Hairgrove, Jacksonville
5. Sterility in Men,
Emil Reis, Chicago
6. The Ambulatory Treatment of Fractures,
E. H. Lee, Chicago
7. Congenital Dislocation of the Hip,
John Ridlon, Chicago
8. Surgical Introspection,
H. W. Chapman, Whitehall

9. Ptosis of the Liver,
A. I. Bouffleur, Chicago
10. Causations of Septic Conditions Following
Surgical Operations,
Waldo Fisher, Alton
11. A Gynæcological Examination,
C. C. Hunt, Dixon
12. The Present Treatment of Syphilis,
Wm. Allen Pusey, Chicago
13. Acute Hemorrhagic Encephalitis,
C. Dewey Center, Quincy
14. Operative Technique of Very Large Inguinal
Herniæ, M. L. Harris, Chicago
15. The Use of Pedicle Flaps for Plastic Sur-
gery of the Hand and Arm,
W. E. Schröder, Chicago
16. The Aseptic Conduct of Labor,
J. B. De Lee, Chicago
17. Renal Calculi,
R. A. Kerr, Peoria
18. Early Nephrotomy,
A. H. Ferguson, Chicago
19. The Treatment of Prostatic Enlargement,
with Special Reference to Bottini's Opera-
tion, F. Kreissl, Chicago
20. Hysterectomy for Infection Following
Labor, Carl Wagner, Chicago
21. The Diagnosis and Treatment of Adenoids,
E. T. Dickerman, Chicago
22. Sympathetic Ophthalmia,
A. L. Adams, Jacksonville
23. Syphilis of the Eye,
W. H. Wilder, Chicago
24. Gonorrhœal Conjunctivitis,
A. T. Haight, Chicago
25. Chronic Inflammation of the Tear Passages,
W. O. Nance, Chicago
3. The Criminal and His Kin; How Can We
Decrease Their Numbers?
G. S. Bower, Galesburg
4. Mental Overwork and Lack of Interest in
Physical Development of and Hygienic
Care of School Children, a Menace to the
Future of the Race, E. A. Edlen, Moline
5. The Scientific Need of Legislation Enforc-
ing County Registration of Syphilitics,
James E. Coleman, Canton
6. Syphilis in Relation to the Dental Profes-
sion, L. Blake Baldwin, Chicago
7. A Further Consideration of State Medicine
and Sanitation, A. C. Corr, East St. Louis
8. The State Care of Consumptives,
John A. Robison, Chicago
9. The Epileptic Colony,
D. R. Brower, Chicago
10. Sanitarium Treatment of Pulmonary Tuber-
culosis in Illinois,
Florence Hunt, Chicago
11. Observations as to the Efficiency of the Chi-
cago Health Department Method of Fu-
migation, Adolph Gehrman, Chicago
12. The Relation of the Physician to the Public
School, Katherine Miller, Lincoln
13. Medico-Legal Status of Abortion,
O. B. Will, Peoria
14. If the Cause is Removed, the Cure Will Fol-
low, W. J. Chenoweth, Decatur
15. What Shall the Harvest Be?
R. H. Henry, Peotone
16. Slight Ailments, L. L. Leeds, Lincoln
17. The Elimination Function of the Kidneys
in Health and Disease,
J. Palmer Matthews, Carlinville
18. Practical Observations on the Chemical Ef-
fects of a Few of the Older and Some of
the Newer Remedies
E. L. Herriott, Jacksonville
19. Preventive Medicine and the Higher Medi-
cal Education,
E. B. Montgomery, Quincy

Symposium on Rectal Diseases.

(The Symposium on Rectal Diseases will be the special order of business for Thursday morn-
ing.)

- (a) The Diagnosis of Diseases of the Rectum,
J. Rawson Pennington, Chicago
- (b) The Pathology and Treatment of Fistula in
Ano, A. E. Halstead, Chicago
- (c) The Treatment of Prolapse of the Rectum,
Weller Van Hook, Chicago
- (d) The Treatment of Hæmorrhoids,
N. H. Henderson, Chicago

L. Blake Baldwin, of Chicago, will exhibit Stereopticon Views of color photography of Skin Diseases in the Sunday School Room of the First Methodist Church, Wednesday, May 16, at 5:30 p. m.

SECTION THREE.

Etiology, Hygiene, State Medicine and Medical Jurisprudence.

Chairman.....George F. Butler, Chicago
Secretary.....W. J. Fernald, Rantoul

Address—A. C. Cotton, Chicago.
"Jeremiah XXXI. 15."

2. The Relation of the State to the Dependent,
J. B. Maxwell, Mt. Carmel

ABSTRACTS OF PAPERS TO BE READ.

SECTION ONE.

Dr. N. S. Davis, Chicago, "On the Evils Resulting From Naming Diseases for Individuals."

1. It is very inconvenient.
2. It is meaningless, i. e. it conveys no information concerning the causes, location, nature or results of the disease.
3. It is unscientific. Disease is necessarily a deviation from the healthy condition of function or structure of some part of the whole of the living body. Consequently its name should be suggestive of the nature, and when possible, also of the chief seat of the disease.

Irwin, Plymouth, "Chronic Diarrhœa in the Aged."

1. Its resistance to treatment as regards time.
2. Difference in forms and peculiarities.

Dr. J. C. Sullivan, Cairo, "Smallpox, Its Differential Diagnosis."

Modified or mitigated smallpox can be readily and with certainty differentiated from varicella. May find modified and malignant in same group. Malignant can result from modified contagion.

Dr. J. N. Black, Clayton, "Pneumonia and Its Treatment."

Varieties as to seat and causation, with appropriate management and treatment. No belief in panaceas for pneumonia. Doubtful benefit of cold pack. Judicious selection of remedies at proper time necessary. Relief in use of drugs whose physiologic action produces condition which is diametrically the opposite of the condition for which they are given. Finds use for blisters, poultices and cotton jackets.

Dr. F. P. Norbury, Jacksonville, "Diagnosis of Tumors of Spinal Cord and Its Membranes."

1. General symptoms of tumors of cord. 2. The differential diagnosis in which will be considered, caries of the spine, cervical meningitis, cervico-occipital neuralgia, myelitis, acute, sub-acute and chronic.

2. The nature of the tumor, tuberculosis, syphilitic and sarcomatous growths of, or impinging upon the cord.

Dr. John N. Nelms, Taylorville, "Anomalies and Monstrosities."

1. Presenting an eight months foetus with hydrocephalus, spina bifida, syringo-myelocoele, genu varus, talipes varus, talipes calcaneus, umbilical hernia with protrusion of intestines, liver and spleen, imperforate anus, complete absence of sexual organs, absence of auditory canal, mammary glands in pubic region.

2. Reasons for the causes of these abnormalities.

Dr. S. E. Munson, Springfield, "Our Milk Supply, Some Observations at Home and Abroad."

The various modifications of milk for infants and invalids in Europe. The same features in this country. How best secured for travel. The most successful modifications of milk for infant feeding. The best method for securing good milk. The clinical importance of pure milk.

Dr. F. S. Dodds, Anna, "Typhoid Fever in Southern Illinois."

Typhoid fever as seen in the southern part of this State, or in a malarious district, is rarely pure typhoid. A large majority of the cases of so-called typhoid in Southern Illinois are adulterated with malaria.

Characteristic symptoms of typhoid wanting.

Dr. A. C. Corr, Carlinville, Address in Medicine; Section 1. Medicine? Or Surgery? Are they separable? If not, which is the science? Which the specialty?

Synopsis—Medicine and surgery are inseparable in practice except in the extremes. Medicine is a science and embraces all that come under the head of the "Practice of Medicine."

The tendency is strong to be enticed by the glamor of surgery for its mere physical appearances, and to forget that tissues have properties that may by a classified derangement constitute a disease, and that these properties may be modified by medicines so as to correct the aberration and cure the disease without destroying any known germ of antidoting a disease or ptomaine.

If surgery arrogates much, medicine must become in a restricted sense a specialty. The well

informed general practitioner is the only one who can comprehend the whole situation and is the safest one to trust, and is the best exponent of the science and practice of medicine. No one is competent to practice a specialty till he or she has practiced and studied general medicine for at least ten years.

Dr. Frank Billings, Chicago, "Myxedema, With Report of Cases."

1. Histories of cases of myxedema in the practice of the writer.

2. History of the disease.

3. The pathology and etiology of the disease recognized by animal experiments and by surgical and medical experience upon man.

4. The diagnosis and prognosis.

5. The treatment.

Dr. R. J. Christie, Jr., Quincy, "A Case of Chylous Asites."

1. Reference to editorial in Journal of the American Medical Association Feb. 3, 1900

2. Review of literature of subject.

3. Description of case.

4. Discussion of points in case.

5. Conclusions.

Dr. J. W. Kelly, Springfield, "Nephritis."

Essayist emphasizes its prevalence, alludes to reasons for this prevalence, and cites illustrations.

The importance of an accurate and early diagnosis

Report of three cases.

Dr. Jas. Brayshaw, Berlin, "Chronic Gastritis."

1. Diagnosis.

(a) Symptoms.

(b) Examination.

I. Physical.

II. Chemical.

2. Treatment.

(a) Dietary.

(b) Medicinal.

(c) Mechanical.

3. Reports of illustrative cases.

Dr. James B. Herrick, Chicago, "Concerning the Simulation of Abdominal Disease by Pleurisy."

Pain is often referred to a point distant from the seat of the primary trouble. So in pleurisy pain is often referred to the abdomen. According to the location of the pain and the accompanying symptoms, different diseases of the abdomen may be simulated e. g., appendicitis, gallstones, intestinal obstruction, hemorrhagic pancreatitis.

Diagnostic points.

Dr. Hugh T. Patrick, Chicago, "Every Day Headaches."

Every day headaches are those of—

1. Migraine.

2. Neurasthenia.

3. Infection and intoxication. (Fever, constipation, indigestion, alcohol, etc.)

4. Eye strain.

Of these 3 and 4 are very briefly considered.

In the experience of the author 1 and 2 are incomparably the most frequent.

The headache of neurasthenia is not really a head pain, but is nearly always rather a cephalic distress. Peculiarities, causes, treatment. Illustrative cases.

Migraine, if not the most frequent headache, is the most frequently misunderstood. Prevalence, nature. What it is not. Causes, peculiarities and variations, diagnosis, treatment. Illustrative cases.

Dr. W. J. Fernald, Rantoul, "Principles of Immunity."

1. The nearest approach to a scientific explanation of acquired immunity is Metschnikoff's theory of Phagocytosis.

2. The phenomenon of immunity is a biological one, and must be explainable by the law of Evolution.

3. The biological factors involved are on the one hand, the action of environing forces destructive or constructive, on the protoplasm of the cell. On the other hand, the reaction of the protoplasm on the environing forces.

4. Immunity is perfect physiological resistance.

5. Diseases conferring immunity against themselves and reasons therefor.

Dr. H. W. Woodruff, Joliet, "Rheumatic Diseases of the Eye."

Not strange that the eye should be subject to rheumatism, being composed of tissues so prone to the disease.

As the sclera repressing fibrous tissue.

The iris and ciliary body and extrinsic muscles representing the muscular structure.

The choroid representing the vascular system.

Acute anterior rheumatism rarely affects the eye.

The term "rheumatism" also represents certain symptoms in structures not connected with the joints, as muscular rheumatism.

Causes—Hereditary traits. Rheumatic diathesis.

Exciting causes are exposure to cold and muscular exertion.

Certain diseases of the sclera and iris particularly associated with the rheumatic tendency.

Episcleritis.

Scleritis.

Iritis.

The importance of eliminating syphilis as a cause.

Dr. D. M. Knapp, Mendon, Ill., "Chorea."

Report of a case of chorea in girl of sixteen years of age, showing gradual progression to a spasmodic tabes dorsalis with knee pain, gastrointestinal and respiratory crisis; blepharospasm, nystagmus and a gradual extension to the lower extremities, interfering with motility.

Dr. W. T. Moffitt, Williamsville, "The Imbibition of Water in Relation to Some Forms of Disease."

Water is one of the oldest of therapeutic agents. It has been used externally and internally, hot and cold.

The body is composed of water in the proportion of between two-thirds and three-fourths. The fluids of the body are almost wholly water, the tissues largely so. The fluids of the body carry on vital functions. A certain amount of water is necessary for these functions.

Six grains of solids per pound of body weight should be eliminated by kidneys daily in urine of about 1020 Sp. Gr. This requires certain definite quantities of water to pass through the organism and out by way of kidneys.

Drinking cold water increases arterial tension, reduces bodily temperature, increases elimination and aids digestion. Warm water is a simple and usually effective emetic. Hot water sipped an hour before meals highly recommended for gastritis. Drinking cold water recommended in typhoid and other fevers.

Constipation, renal insufficiency and deficient perspiratory elimination accompany, if they are not largely responsible, for many diseases as migraine, muscular rheumatism, epilepsy, insanity, hysteria, chlorosis, asthma and some gynecologic disorders.

These patients as a rule drink too little water. Water loaded with products of tissue katabolism is retained in the tissue and causes auto-intoxication.

To maintain health about four or five pounds should be imbibed daily. Where elimination is to be increased an additional quantity of water should be imbibed daily.

Water is best diuretic, diaphoretic and laxative. Physicians should instruct their patients as to the importance of drinking physiologic amount of water.

Dr. M. S. Marcy, Peoria, "Complications and Sequelæ of Scarlet Fever."

1. Complications to be dreaded for lack of a positive antagonist to micro-organism, streptococcus.

2. The necessity of watching patient after acute symptoms subside for fear of complications.

3. What are the complications?

4. History of a very severe case with all the complications following a mild attack.

5. According to my observation complications are apt to be worse in children who inherit weak constitutions from parents who have suffered from syphilis, tuberculosis, and especially children from old fathers; have never read anything in reference to last class.

SECTION TWO.

Dr. Willis O. Nance, Chicago, "Chronic Inflammation of the Tear Passages."

Frequency and importance of lachrymal disease. Anatomy and physiology of the tear conducting apparatus. Symptoms of chronic dacrystitis. Epiphora. Diagnosis—(a) mucocele, (b) patency of passages. Etiology—Importance of nasal disease as a causative factor. Constitutional disease. Treatment—(a) Relief of morbid conditions of the nasal chamber; (b) instillations, manipulation and injections; (c) dilatation; (d) choice of canaliculus and operation of slitting; (e) probes; (f) styles and canulæ; (g) extirpation of sac.

Dr. C. Dewey Center, Quincy, "Acute Hemorrhagic Encephalitis."

A case of multiple terminal twig hemorrhage of the cortical system of the right side of the brain followed by transient left hemiplegia petit mal and later generalized convulsions. Operation. Recovery.

SECTION THREE.

Dr. G. S. Bower, Galesburg, "The Criminal and His Kin; How Can We Decrease Their Numbers?"

The habitual criminal regarded as our diseased. His nemotic ancestry and relations, the insane, paupers, inebriates, etc. Some of the causes producing them. The slight deterrent effects of punishment. The good which may be done among them by improved sanitary and hygienic measures.

Dr. W. J. Chenoweth, Decatur, "Remove the Cause and the Effect Will Cease."

This axiom was chosen as a test for the treatment of tuberculosis of the lungs.

Assuming that the disease is the result of an attack of the tubercle bacillus on a susceptible lung, there is necessarily a combination of two factors, neither of which, if kept from the other, could have produced the disease.

The result of the combination is evinced by an alteration of the organic and functional processes of the lung. The only conceivable method of relieving the lung is to render it unfit food for its enemy, which can only be done by bringing it up to a standard of health.

Dr. R. H. Henry, Peotone, "What Shall the Harvest Be?"

All schools, private or public, should be under strict medical inspection—teachers and pupils alike. All tuberculous suspects should be tested with tuberculin.

School buildings and premises should be thoroughly disinfected at the close of the school season and again at the beginning of each term. Floor should be scrubbed at least once a week with a disinfectant solution. There should be a medical health officer for each school, who with the board of directors constitute the School Board of Health. Teacher must know how to take pulse and temperature and note symptom of the common ailments in children.

Dr. E. L. Herriott, Jacksonville, "Practical Observations on the Clinical Effects of a Few of the Older, and Some of the Newer Remedies."

Exercising careful judgment of remedies in a given case, with reference to temperament, constitutional defects and other characters of the case. A proper selection of antiseptics to the case in point, mode of application, administration, etc., from the myriads of substances now foisted on the profession, of anesthetics, anodynes, alteratives and of drugs generally, some of the coal-tar derivatives, animal extracts, etc.

The application of other therapeutical remedies, aside from medicines. The use of electricity in the hands of the general practitioner. The unfortunate discarding of the lancet by the profession almost to its entirety.

Florence W. Hunt, M. D., Chicago, "Sanitarium Treatment of Pulmonary Tuberculosis in Illinois."

The responsibility of the State from the protective economic and humane point of view. The mortality of pulmonary tuberculosis. Social factors operating in Illinois to increase the mortality. The principle embodied in the conception of the sanitarium. Brief resume of the sanitarium movement.

Objections that may be raised against the location of a sanitarium in Illinois.

Location, construction and equipment of the sanitarium. General resume.

Katharine Miller, M. D., Lincoln, "The Relation of the Physician to the Public School."

By virtue of the increasing recognition by the public of the need for proper sanitation in school buildings the physician has a closer relation to the schools than the average citizen; and this is emphasized as the public recognize that the professional training of the doctor fits him for the oversight of these things and makes him a skilled adviser.

Aside from this the spirit of the profession compels the physician's interest in these questions, and with these the subject of arrest and prevention of contagious diseases among children, and the care of the body, including exercise and bathing, and examinations as to defects in hearing and sight in their relation to mental development, come within his province. Those who have studied these things must realize most clearly how much may be done for the rising generation by the supervision of the physician. To secure the opportunity for this requires an enlightened public sentiment, and here the physician has a chance to use voice and pen to advantage in giving information.

A good number of communities have shown their appreciation of the facts by selecting physicians as members of their boards of education, and in the greater number the other members have shown a disposition to yield large deference to professional opinion on all questions where it should have weight.

Results are seen in the improved conditions of school buildings, leading to better health of the children, the enforcement of vaccination, and the general enlightenment of the community as to the need and effects of school hygiene.

As a matter of civic duty due from those citizens specially fitted to render such service physicians should interest themselves in school sanitation. They should be informed as to methods of heating, lighting and ventilating school rooms, as to occasions for quarantine, as to the effects of defective sight and hearing, as to the need of methods of cooking and manual training, school gymnasiums, amount of work to be required at various ages, adaptation of building, blackboards, etc., to the children's needs.

E. A. Edlen, A. B., B. S., M. D., Moline, Ill., "Mental Overwork and Lack of Interest in Physical Development and Hygienic Care of School Children, a Menace to the Future of the Race."

The present system of education in public schools tends to develop the mind at the sacrifice of bodily health and physical development.

The school teacher takes pride developing the intellectual faculties and ignores the physical well-being of the child. No discrimination in favor of the weak or backward children is practiced. Subjects beyond the grasp of the intellectual faculties of the child are studied. The reason of backwardness and inability is seldom looked into, to the detriment of many children. The teacher concerns himself with very little outside his studies.

School hours are too long and lessons made uninteresting. Children are unable to fix their attention on any subject but for a short time, still they must sit still during hours at a time, in an over-crowded room, in an uncomfortable position trying to learn an unintelligible lesson in direct violation of nature's laws. Multiplicity of subjects bewilders the youthful mind, causing great strain on the nervous system and a resultant breakdown.

A child is sent to high school without due regard to inclination, ability or physical strength. Too much intellectual work is required of boys and girls during their period of evolution, which is not only too much for the pupils, but also economically unbearable by the community. Only superficial knowledge can be obtained under the present methods. This educational intemperance leads to disastrous results. The high school boy is self-conceited, vain, allwise and too self-important to notice anyone but himself.

Civilization has taken a step beyond the limit of common sense to produce him. He is a product of vicious education. The high school girl is a mentally surcharged hot-house plant, an hysterical being with exalted ideas of life, morbid desires and a stranger to her own sphere of usefulness.

The physical development of school children is ignored by the board of education, although it is equally important as mental culture. It must be taken into consideration, or the future of the nation will be endangered. There should be several recesses during the day and gymnastics should be a daily subject in the school. The seats should be adjustable. The hygienic care should be under the supervision of medical school inspectors. Epidemics could thus be prevented, and the general status of health would be improved. Radical changes are necessary in our present system in order to save the nation from decay. It is a question worthy the consideration of our law-makers. Nature cannot be violated continually with impunity.

Dr. A. C. Corr, E. St. Louis, "A Further Consideration of State Medicine and Sanitation."

The conditions requiring "State Medicine" is the otherwise uncontrollable sanitation necessary to preserve and promote an average of health among the citizens of the State.

"State Medicine" consists in State help to produce and preserve conditions of sanitation too great for the citizen or the lesser political divisions, such as township, city or county to maintain, and is a legitimate outgrowth of our social and civil compact. It has limits all do not exactly agree upon; and a citizen will differ with himself according to his mood.

It is deeply involved in the question of the management of smallpox.

Sanitation and State Medicine should be left continuously before the people and legislative bodies, well argued and aptly presented so as to bring about a mature conclusion at the earliest date.

The question of public water supply for potation and culinary purposes should be more deeply considered than has been. Certainly limpid water free of visible particles of sewage can and should be provided by company's corporations asking for the franchise.

Dr. J. Palmer Matthews, Carlinville, "Etiology of Faulty Elimination by the Kidneys."

Virchow's theory of cellular pathology and separate living existence of the leucocyte did not recognize derangements of the circulation or alterations in composition of the blood to be pathological factors. Koch's theory of the action of vegetable micro-organisms. In administration of same follow his four rules. Vaughan's chemic theory; ptomaines.

The products of vegetables micro-organisms in their action on animal tissue which have the chemic reaction of alkaline bases. Group of substances found in excreta in those suffering from other than specific diseases due to micro-organism; are the product of retrograde metamorphosis.

Leucomaines; are synthetics with coffee and tea, and merely identical in action on the animal economy.

Migraine is one of the first signs of faulty elimination. The excretory organs by reason of contracted arteries fail to relieve the auto-intoxications and a chronic malnutrition ensues.

Treatment.

Dr. James E. Coleman, Canton, "Scientific Need of Legislation Enforcing County Registration of Syphilitics."

The alarming increase of venereal disease since the close of the Spanish-American war. What can be done to prevent the spread of syphilis? The extra-genital chancre is abroad in the land. The public health is not safe. It seems necessary that communities should be warned. Nearly all contagious and infectious diseases are quarantined by the public. Venereal diseases alone is not to be mentioned. It is more dangerous in its remote consequences than all the contagious diseases combined. Legislators should recognize these facts, and a law be passed making compulsory the registration of syphilitics. It is our duty to insist upon it.

Cases in point.

The sum of \$50,000 has been presented to the Evanston Hospital by Mrs. Herman D. Cable. Half of the amount is to be used for the erection of the Herman D. Cable memorial building. The other \$25,000 is to be devoted to the maintenance of a children's ward as a memorial to the donor's daughter.

County and District Societies.

CHICAGO PEDIATRIC SOCIETY.

Regular meeting March 1st, 1900. The president, Dr. A. C. Cotton, in the chair.

1. Paper by Dr. E. W. Ryerson, on "Infantile Paralysis," dwelling chiefly on the orthopedic treatment of cases. Discussion by Drs. Moore, Merrill, Walker, Kreuser, Cotton and Churchill.

2. Paper by Dr. F. M. Belknap on "Incipient Tuberculosis." Discussion by Drs. Ryerson, Cotton, Class, Morse and Churchill.

F. S. Churchill, M. D., Sec'y.

DECATUR MEDICAL SOCIETY.

A regular meeting of the Decatur Medical Society was held Thursday evening, March 22d, in offices of Dr. W. B. Hostetler. President W. J. Chenoweth in the chair, and twenty-six members present.

On motion of Dr. N. D. Myers, a committee of five was appointed to arrange a new fee table for the society.

The following gentlemen were chosen delegates to the State Society in May: Dr. M. P. Parrish, Dr. C. M. Bumstead, Dr. J. W. Sanders and Dr. H. C. Jones.

The subject of delay at railroad crossings was brought up and discussed and it was the opinion of the members that physicians making calls on the sick should not be delayed at crossings, but should be allowed to pass promptly as are the police and fire departments. A committee was appointed to secure this.

The regular program was "The Acute Inflammation of the Lungs and Bronchi."

1. Diagnosis and Differentiation, Dr. E. J. Brown.

2. Comparative Clinical Histories, Dr. M. V. Lonergan.

3. Treatment, Dr. J. N. Randall.

4. Complications and Sequelæ, Dr. W. A. Dixon.

5. Above diseases in children, Dr. N. P. Collins.

The program was greatly enjoyed, was

extensively discussed and much valuable information brought out.

Great interest taken in the society and we expect to stand second only to the Chicago Medical Society.

W. C. Wood, Sec'y.

M'LEAN COUNTY MEDICAL SOCIETY.

The 47th annual meeting of the McLean County Medical Society was held in the City Hall in Bloomington, Thursday, April 5th, 1900, at 2:30 P. M. The president, Dr. E. E. Sargent, of LeRoy, was in the chair. Of the nineteen charter members, one, Dr. C. R. Parke, is still in active practice and holds his membership in the society.

The Committee on Printing Constitution and By-Laws reported the difficulty in obtaining some data on the necrology report, and delayed them somewhat, but that they hoped to finish the work soon. Dr. F. C. Vandervort gave notice of a proposed amendment to the constitution creating the office of society historian. It shall be the duty of said officer to keep the necrology report up to date.

The delegates to the State Medical Society were instructed to vote for Peoria as the place for the meeting of that Society in 1901.

The following officers were duly elected for the ensuing year: President, Dr. Chas. E. Chapin, Bloomington; Vice-President, Dr. A. D. Young, Downs; Secretary, Dr. F. C. Vandervort, Bloomington; Treasurer, Dr. J. W. Fulwiler, Bloomington. Board of Censors: Dr. J. Y. Bonnett, Bloomington; Dr. A. N. Earel, Bloomington and Dr. G. D. Elder, Bloomington.

Dr. A. N. Earel reported a case of "Antrum Abscess." Operation through the alveolus, a silver tube introduced and irrigation practiced.

Dr. J. Little in an interesting manner discussed "The Death of Washington," from a medical standpoint.

E. J. Hyndman, M. D., Sec'y.

PEORIA CITY MEDICAL SOCIETY.

At a regular meeting of the Peoria City Medical Society, held at the National Hotel

on Tuesday evening, April 3d, 1900, Dr. O. J. Roskoten in the chair, the minutes of the preceding meeting were read and approved.

The following members were present: Drs. O. B. Will, O. J. Roskoten, J. S. Miller, R. A. Kerr, C. H. Brobst, S. Horwitz, J. W. Hensley, E. M. Eckard, M. S. Marcy, Emma Lucas, A. Plummer, R. D. Bradley, H. A. Schoaff and Hasson.

Dr. O. B. Will reported in behalf of the committee whose object it was to secure for Peoria the semi-centennial meeting of the Illinois State Medical Society. More than half the members of that organization were desirous of meeting in Peoria, but in view of the fact that the organization was founded in Springfield, Ill., the speaker said that it would be no more than fair that the society should favor that city with their jubilee. It would be quite right, he concluded, to lay plans to secure for us the meeting of the fifty-first anniversary of the society, which is to take place in 1901.

Dr. O. B. Will presented a paper embodying some observations of a personal and scientific character made amongst the medical men and institutions of Philadelphia during a recent visit to that city. A description of the personal characteristics and methods of some of the leaders in the profession was indulged in, such as Joseph Price and Prof. Daver, whose operative clinics were followed for a day or two and the salient features of their work dwelt on to an extent including a description of the history, nature and treatment of the cases presented, especially in so far as they differed in any way from the common experience. A general discussion followed having for its object an elucidation of the points brought out. Altogether the session was an interesting and profitable one.

On motion the Society adjourned.

H. M. Sedgwick, Sec'y.

ASSOCIATION OF MILITARY SURGEONS OF THE STATE OF ILLINOIS.

The Association of Military Surgeons of the State of Illinois met at the Great North-

ern Hotel, Chicago, April 10, 1900. President Col. Nicholas Senn, and Secretary Lieut. Col. Chas. Adams in their respective positions.

The minutes of the last meeting held in 1897 were read and approved. A committee consisting of Lt. Col. Kreider, Major G. P. Marquiss and Major T. C. McCord was appointed to present proper resolutions on the death of the three comrades who had passed to fame's eternal camping ground since the last meeting. These were Gen. J. B. Hamilton of the Marine Hospital Service, Chicago; Major Jas. H. Etheridge, Chicago, and Lieutenant L. S. Cole, of Keewanee. Later the committee submitted appropriate resolutions which were unanimously adopted.

Reports from the surgeons who had seen active service in the Spanish-American war were then heard until 12:30, when a luncheon was served at the Great Northern, tendered by the medical officers of the First Infantry. The afternoon was profitably spent at Rush Medical College attending a clinic given by Surgeon General Senn.

At 6 o'clock dinner was served at DeJonghs, tendered by the Surgeon General. After the dinner, in numerous courses, had been served, the reading of reports was resumed and continued until every regiment excepting the fifth had been heard from. Remarks were also made by Lieut. Col. Hartsuff, who was in charge at Chickamauga during the stirring times of '98. Col. Hartsuff very properly took occasion to place himself in a proper light and explain that he had made earnest and repeated efforts to have proper sanitary and medical supplies for the troops during the time they were under his supervision. It was voted to have an association badge, and a committee was appointed on the design. The three assistant surgeons general were appointed as a committee to prepare proper blanks to be used in the examination of recruits. The surgeon general announced that he would, in his report, make use of the reports of their personal work and experience of the Surgeons of Illinois during the war. At a late hour the association ad-

journed, having enjoyed a pleasant and profitable session.

PHYSICIANS' PROTECTIVE ASSOCIATION.

Meeting of the Physicians Protective Association of Jackson County, Ill., held in Murphysboro, April 7, 1900.

Meeting called to order by chairman W. W. Essick. Minutes of last meeting read and approved.

Reports of the special committees called for. Dr. Essick reported that having found the original letter from Mr. Gompers, he (Dr. Essick) had not written him relative to the matter of our organization affiliating with the A. F. of L., but would do so if the Association so desired. Moved by Dr. Seed, seconded by Dr. Ellis that this report be accepted and the committee discharged. Carried.

Dr. Freeman reported that the committee composed of Dr. Silvey and himself had no report, and was continued by the chair.

Dr. Daniel reported that Mr. Oogley, the writer of the illegal prescription, had communicated with the State Board of Health, had had his attention drawn to those sections and articles relating thereto, and intended going to Springfield to take the State Board examination, and further stated that he would not be guilty of a like offense again. Such being the case Dr. Daniel did not write the State Board relative to the matter. The chair stated if there were no objections the report would be accepted, the committee discharged and the incident closed, which was adopted.

The matter of county or pauper practice being next brought up was discussed and as several of the members stated that the supervisor said all such practice should go to Dr. Etherton at the regular fee bill rate. It was moved by Dr. Ellis, seconded by Dr. Riseling, that the chair appoint a committee of two to wait on the supervisor and explain to him our position in the matter and state we do not consider that any physician should have this exclusive practice, but that each should have his share. Further that if he does not pay the fee bill rate

that we shall certainly make our displeasure manifest to him. Carried.

The chair appointed on this committee Drs. Riseling and Daniel.

Dr. Seed then stated that the name of Mr. ———— should be taken from the delinquent list, he having settled his indebtedness to the doctor and the secretary was ordered to so notify all absent members.

Dr. Wheeler then presented an excellent paper on scarlet fever. Dr. Essick lead the discussion. An able and practical talk followed, in which each member of the association present said a few words on the subject.

The chair then appointed Dr. Seed to act with Dr. Post on the program committee.

Motion that we adjourn to meet at the regular time at the office of Dr. Wheeler. Carried.

ADAMS COUNTY MEDICAL SOCIETY

The Adams County Medical Society held their regular monthly meeting in the Chamber of Commerce, Quincy, April 9, 1900.

President Tull being out of the city, Dr. Sigsbee, of Mendon, presided at meeting. Minutes of meeting of March 12 were read and approved. Members present: Drs. Christie, Gilliland, Sigsbee, Center, Hart, German and W. W. Williams.

Report of treasurer of Banquet Committee, Dr. Chas. D. Center, was read showing:

Receipts—

By sale of 62 tickets..	\$124 00
By reserve fund	50 00
	<hr/>
	\$174 00

Expenditures—

To Newcomb Hotel ...	\$140 00
To Gardener Orchestra	10 00
To decoration. (florist)..	10 00
To printing & postage..	13 85
	<hr/>
	\$173 85

Balance of 15 cents was paid to secretary.

Auditing Committee, composed of Drs.

Gilliland, Fletcher and W. W. Williams examined report, and found same correct.

A motion was made that the Society return a vote of thanks to the Committee on Arrangements for the excellent entertainment and banquet given in honor of our fiftieth anniversary. Carried. The same committee with the secretary were instructed to write up a suitable report of our fiftieth anniversary, banquet, etc., and report at next meeting.

Communication from Dr. E. M. Sutton, of Peoria, laid on table.

Invitation from Quincy Water Works Company to visit and inspect the filtering plant carried over to next meeting.

Application of Dr. A. D. Bates, of Camp Point, for membership, recommended by Dr. Gilliland, was received and sent to censors.

Report from committee appointed to take steps to secure a pest house was made by Dr. Hart. He reported the committee had conferred with Board of Health, and learned they had purchased property located north of the city, said property consisting of a house and eleven acres of ground. Already six cases of smallpox were being cared for there now.

Clinical report. The surgical treatment of Empyæma with report of three cases, was given by Dr. W. W. Williams, and discussed by the following members: Dr. R. J. Christie, Jr., said Dr. Bernays, of St. Louis, read a paper at the Tri-State Medical Society, advocating the removal of the fibrinous membrane and allowing the lung to expand. He reported a case of serous effusion where aspiration was followed by empyæma, and after re-section of four ribs patient made good recovery. Dr. Center thinks the grippe microbe the cause of most cases of empyæma.

Dr. Hart believes in irrigation of chest with weak solution of Tr. Iodine.

Dr. Gilliland reported cases, where the membrane was one inch in thickness.

Dr. John Koch believes in injections of iodoform emulsion.

The card from Dr. E. W. Weis, Per. Secretary of Illinois Medical Society, was

read inviting the secretary of this society to send the minutes and manuscript of the good papers to be published in the Journal.

Dr. Center made motion that the secretary thank Dr. Weis for the courtesy extended, and also send him the paper of any member of the Society that desired his paper published, the secretary of Journal to decide as to its merits, whether or not it should be published. Also that Dr. W. W. Williams send his paper for publication. Carried.

Meeting adjourned.

W. W. Williams, Sec'y.

SANGAMON COUNTY MEDICAL SOCIETY.

The Sangamon County Medical Society met in the County Court room, Springfield, April 9, 1900 with President Kreider in the chair.

Members present: Drs. Bartlett, Barker, Babb, Brayshaw, Bowcock, Brittin, Crocker, Fisher, Griffith, A. L. Hagler, Hill, Kreider, Munson, Nelson, A. D. Taylor, I. H. Taylor, Percy Taylor, L. C. Taylor and Walters.

The minutes of last regular meeting were read and approved.

The following new members were elected, viz: Drs. Vernon, Guttery, S. Ellen Rourke and L. L. Leeds.

The application of Dr. Margaret Taylor Shutt was received and referred to the Board of Directors. Also application of Fred S. O'Hara, received and referred.

The topic of the evening was opened by Dr. Crocker with "Causation, including Heredity of Tuberculosis;" long been known as infectious disease, characterized by nodular bodies; true nature of same demonstrated by Koch about 1882; found among animals other than man, especially in cattle; bacillus found in nearly every part of the tuberculous; circulatory system, tissues, excreta, milk, stools, urine, but especially in the sputum. Bacillus found outside of the body in food and in the dust, wherever tuberculous persons frequent, as in houses, streets and all public places. Various modes of infection, hereditary transmission, food, and inoculation; by

heredity is meant the transmission of predisposition to the disease rather than that the germs are transmitted from mother to child. Spoke of the occurrence of the disease by inoculation. The danger from inhalation came through the carelessness of the consumptive, especially with the sputa, which dried became a danger to the uninfected as it was taken up by the air and disseminated widely. Infection from milk supply also a source of great danger. Various conditions influencing infection, as individual predisposition, age, sex, race, occupation, local conditions and environment found in ill-ventilated workshops and tenements, devoid of sunlight, in damp localities, etc. No age exempt, but different ages show difference in manifestation. Sex influence slight. Occupation a predisposing cause more from environment, than otherwise.

Dr. A. L. Hagler presented the "Microscopical Diagnosis" of the disease. The discovery of the organism which causes tuberculosis, and the consequent employment of the microscope to so great advantage in the diagnosis of the disease, has proved of incalculable benefit to mankind; fairly revolutionizing a great department of surgery. This important discovery results from many years of research and experiment. The inoculability of tuberculosis was first recognized in 1826 by Laennec. Villemin, in 1865, first demonstrated experimentally, the possibility of transmitting the disease from man to animals. Cohnheim in the following decade proved that tuberculosis is a specific infectious disease. Baumgarten receives credit for being the first to see the bacillus with the microscope, but to Koch is given the honor of demonstrating beyond question its right to be considered the cause and the only cause of tuberculosis. Microscopical examination is now a necessity for a thorough and scientific diagnosis of tuberculosis; it must be borne in mind, however, that while the presence of the bacilli of tuberculosis in a specimen is a positive indication of that disease, the absence of such bacilli is not always a proof that the disease does not ex-

ist. The microscope is employed to advantage in the examination of the sputum of the tuberculous pus, of the tubercle in the case of lupus, and of the urine. Described the tubercle bacilli; where most frequently found, methods of staining, etc. Quoted Baumgarten as authority for statement as to the inoculability of cheesy material causing the disease where the bacilli could not be demonstrated, by any system of staining. Described method of securing specimen from urine for examination by microscope.

Dr. Ryan considered "*Osseous Tuberculosis*," first taking up *Caries of Vertebrae, or Potts Disease*.

Described the etiology as tuberculosis and injury. Site of disease, the bodies of vertebrae usually beginning in the center. Resulting lesion a more or less complete destruction of the bodies of the vertebrae, with angular deviation of the spinal column.

Cervical Disease. Abscess opening at side of neck behind sterno-mastoid; in pharynx, or pus burrowing behind oesophagus into pleural cavity. Dorsal, pus following sheath of psoas muscle, forming psoas abscess, etc.

Lumbar Region. Psoas muscle often involved and abscess pointing in iliac region or escaping at sciatic foramina making gluteal abscess; rarely eroding into intestines.

Deformity. Most marked in the dorsal region. Described early symptoms.

Lumbar Disease. Pain extending down thighs; normal hyper-extension of thighs lost. If normal extension of thigh present, disease at or below the attachment of the psoas muscle can be excluded. Considered treatment.

Coxalgia, Coxitis. Hip joint disease.

Etiology; Tuberculosis—Injury. Described site, symptoms, physical examination. *First Stage, Second Stage and Third Stage* with treatment. Also considered *Tuberculosis of Knee*, with treatment.

Drs. Griffith, L. C. Taylor, Munson, Walters, Bartlett and others joined in the discussion of the different papers.

Dr. Bartlett offered the following resolution:

Resolved, That the president appoint a committee upon "The dairy as a source of danger in spreading tuberculosis, especially among children;" also a committee to report upon the danger to the public from expectoration of sputa upon the streets, in street and railroad cars, and in public places, and to recommend measures whereby this filthy and dangerous habit may be prevented.

The president appointed as first committee Drs. Bowcock, Fisher, Munson, A. D. Taylor and A. L. Brittin; and as second committee Drs. Griffith, Babb, Walters, Brayshaw and Bartlett. Both committees to report at the June meeting.

The Society adjourned to the second Monday in June.

Edward P. Bartlett, Secretary.

PIKE COUNTY MEDICAL SOCIETY.

Pike County Medical Society, organized April 19, 1900, at Pittsfield, Ill.

Officers chosen were as follows:

President, Dr. L. J. Harvey, of Griggsville.

Vice-President, Dr. H. T. Hatfield, of Pittsfield.

Secretary, Dr. R. H. Main, of Barry.

Treasurer, Dr. G. F. Bechdoldt, of Perry.

Directors, Dr. B. P. Bradburn, Dr. Samuel Peacock and Dr. G. Henry.

Judiciary Council, Dr. J. H. Barber, Dr. Forbes Reynolds, Dr. W. H. Garrison, Dr. G. N. McComas, Dr. C. E. Beavers.

Sixteen physicians were present as follows: Dr. L. J. Harvey, Griggsville; Dr. G. Henry, El Dara; Dr. Geo. A. Humpert, Pittsfield; Dr. R. O. Smith, Pittsfield; Dr. Wm. Shastid, Pittsfield; Dr. C. E. Beavers, Barry; Dr. G. N. McComas, New Canton; Dr. G. F. Bechdoldt, Perry; Dr. F. M. Crane, Pittsfield; Dr. H. T. Duffield, Pittsfield; Dr. Sam'l Peacock, Baylis; Dr. Virgil Beavers, Beverly, Adams County; Dr. B. P. Bradburn, Pearl; Dr. J. H. Barber, Pittsfield, and Dr. R. H. Main, Barry.

GALLATIN COUNTY MEDICAL SOCIETY.

The Gallatin County Medical Society met in regular session April 11th, 1900, at the offices of Drs. Cassidy and Grattan.

Present—Drs. Colvard, Barton, Grattan, Coombs of Ridgway, Bourland of Equality, and Cassidy. Absent—T. W. Jones of Inman.

Dr. H. L. Starkey of Junction, was elected a member of the society.

The papers of the evening were by Dr. J. F. Barton, "Tonsillitis and its Treatment," and Dr. I. N. Bourland, "Influenza and Complications." Both were freely discussed by all present and the society thanked the essayists for the able papers presented by them.

The society also discussed the question of amending the present medical practice act, and decided to support only such candidates for the legislature as would pledge unqualified support of any and all amendments offered by the legislative committee of the Illinois State Medical Society.

The officers for the current year are Alex. H. Colvard, President; W. H. Grattan, Vice-President; Geo. P. Cassidy, Secretary and Treasurer.

The society meets on the evening of the second Wednesday in each month.

Geo. P. Cassidy, Secretary.

MACOUPIN COUNTY MEDICAL SOCIETY.

The semi-annual meeting of the Macoupin County Medical Society was held in the Masonic Reading Room, and was called to order by President Collins at 11 A. M.

There were present F. C. Barto, Plainview; G. E. Hill, Girard, and John Ash, Brighton. The local profession was represented by Drs. J. P. Matthews, L. H. Corr, J. S. Collins, J. M. Barcus, Elias Davis, J. P. Denby, E. A. Bleuler and J. Palmer Matthews.

Committee on Necrology made following report:

WHEREAS, Death has entered our ranks and removed from their fields of labor Drs. C. E. Jones of Thomasville, A. G. Mc-

Coskey of Modesto, and L. F. Corgan of Woodburn; therefore be it

Resolved, That this Society extend to the bereaved families its sincere sympathy and condolence and assure them that its members will ever be ready to extend them professional courtesy at all times.

Signed L. H. Corr,
F. C. Barto,
J. P. Denby.
Committee.

The Board of Censors reported F. C. Barto, President; H. W. Gobble, Vice-President; J. Palmer Matthews, Secretary and Treasurer. Place of meeting in absence of other invitations, Carlinville. Essayists: Drs. J. S. Collins, A. T. Bartlett, M. B. Dalton.

The afternoon session was called to order by President Collins. The first paper, entitled "Prophylaxis in Typhoid Fever," was read by the Secretary in the absence of the author, Dr. Penniman. "Typhoid fever is in theory a preventable disease. The objects of prophylaxis are:

1. To prevent any case of disease becoming a focus of infection.
2. To correct such faulty sanitary arrangements as lead to pollution by fecal matter of water used for drinking and domestic purposes."

These two points were brought out at length by the paper, and the discussion on the various methods of carrying the germ in sporadic cases. The measures to keep up the standard of health of all who come in contact with the patient is a very important point in prophylaxis.

Dr. L. H. Corr read a paper prepared by Dr. A. C. Corr on "Highmyopia."

Dr. John Denby read a paper on "Physicians' Duties Preparatory and During Pregnancy."

A general discussion followed which brought out a number of the more important points in the conduct of a case of labor.

Dr. J. P. Matthews reported a case of puerperal septicæmia with diphtheritic deposit over vaginal portion of cervix. Condition followed rupture of perinæum.

The septic infection was treated locally

and Crede's ointment of silver was rubbed into abdomen and a good recovery is reported.

After delegates to State Medical Society were provided for the society, on motion, adjourned.

J. Palmer Matthews,
Secretary.

SPECIAL MEETING OF MORGAN COUNTY MEDICAL SOCIETY.

An open meeting of the Morgan County and neighboring Medical Societies to discuss the medical laws and medical organization in the State of Illinois, was held at Jacksonville, April 12, 1900.

For some time certain members of the Morgan County Medical Society had believed that our medical laws and medical organization in this State should have a more free and general discussion. It has usually been the custom to consider such questions in the State Society, while as a rule they have not been discussed in local Societies. The discussion of such questions is less hampered and more true to the belief of each individual in local Societies than in delegate Societies, and for this reason all matters relating to legislation should begin with the local Society, where each individual feels perfectly free to express his personal views. In this way the real views of the profession can be obtained and out of these views legislation can be formulated.

This meeting was organized with the further belief that in order that physicians may be able to properly protect the public health they should be better organized and should be more in unison in securing health measures. With these thoughts in view a committee was appointed to formulate a program, and the following Medical Societies were invited to participate:

Sangamon County Medical Society, Macoupin County Medical Society, Peoria Medical Society, Brainard District Medical Society, Central Illinois District Medical Society, Western Illinois Medical and Surgical Association, Military Tract Medical Society, and Decatur Medical Society.

Every Society except one responded favorably, and every appointee but two was present with a well-prepared paper on this topic.

The following is a list of the physicians and others present:

Drs. R. H. Main of Barry, C. W. Hall of Kewanee, Geo. N. Kreider of Springfield, L. Middleton of Pontiac, J. R. Walker of Bluffs, A. C. Corr, of Carlinville, F. M. Crane of Pittsfield, R. O. Smith of Pittsfield, S. T. Hurst of Greenview, E. J. Brown of Decatur, W. W. Crain of Sinclair, Wm. Wolfe of Arcadia, Johnson of Barry, Redwine of Whitehall, H. W. Chapman of Whitehall, H. A. Chapin of Whitehall, W. C. Day of Winchester, J. C. Caldwell of Manchester, Knox of Manchester, Casey of Cincinnati, O., G. F. Becholdt of Perry, J. H. Barto of Waverly, W. G. Maness of Nortonville, Higbee of Rood-

house, T. W. Moffett of Williamsville, H. B. Boone of Chandlerville, E. M. Eckerd of Peoria, Katherine Miller of Lincoln, C. B. Johnson of Champaign, J. Shipp of Springfield, Williams of Versailles, F. M. Coppel of Havana, W. C. Manley of Franklin, L. J. Harvey of Griggsville, A. J. Ogram of Litterberry, Mrs. W. G. Maness of Nortonville, and Drs. A. F. B. Burnham, A. L. Adams, F. P. Norbury, E. L. Herriott, Carl E. Black, Josephine Milligan, E. F. Baker, E. S. Crouch, T. J. Pitner, J. J. Cochran, Virginia Dinsmore, E. Sipes, H. C. Campbell, J. W. Hairgrove, J. E. Wharton, D. W. Reid, P. C. Thompson, Miss Doying, Mrs. P. E. Hofmann, F. S. Hardin, Geo. Stacy and Wm. Walton of Jacksonville.

Letters from Drs. J. W. Pettit of Ottawa, E. W. Weis of Ottawa, J. A. Egan of Springfield, H. N. Moyer of Chicago and W. H. Wilder of Chicago and others indorsing the purpose of the meeting and expressing their regrets at not being able to be present were read.

The first paper was entitled, "History of Our Medical Laws," by Dr. A. C. Corr, of Carlinville, representing the Macoupin County Medical Society.

Dr. E. J. Brown, of Decatur, said in discussion of Dr. Corr's paper, that "he had heard Dr. Chenoweth, of Decatur, say at a meeting of the Decatur Medical Society that he claimed the honor of being the first person in this State to suggest the passage of the Medical Act. He had received papers from California telling of the doings of the State Board of Health there, and he thought it would be a good thing for the medical profession in the State of Illinois to have such a Board. He claims that this was the conception of the present Medical Practice Act. Of course the prior claim of Dr. Trowbridge, mentioned by Dr. Corr, was the pioneer in the making of suggestions of the Medical Practice Act of Illinois. This was two years before the act was made a law."

Dr. C. W. Hall, of Kewanee, said: "I am very much interested in the history of the Medical Practice Act. While it is a matter of historical interest to me, there is a great deal between the lines. It seems to me that the essence of this paper is this—that the Board of Health and the Medical Practice Act is a creation of the Illinois State Medical Society. Being so, it is the duty of every member of that Society to support it. It seems to me that any doctor who belongs to that or any other Society should not find fault with it. It being a creation of our own, it is our duty to maintain and support it. As shown by the paper read, it seems to take a great many years to make any progress. I find that it is very easy in this world to find people who can criticize, but it is hard to find people who improve. I think it better for the medical profession to stand united. Loyalty to the profession is the only thing that will bring success before the Legislature. I think one of the main points of this meeting is to see if we cannot in some way agree on definite ideas."

Dr. Geo. N. Kreider, of Springfield, said: "I wish to commend this paper of Dr. Corr's as an historical recital of events which I think cannot be too often brought before the profession. I think Dr. Corr might add to his paper the small

size of the State Society when it set about to have this law enacted. It only numbered about 350 members in 1877, and of these only 194 were active members. Twenty Societies only were represented at the 1877 meeting of the State Society."

Dr. E. L. Herriott, of Jacksonville, said: "Would it not be well to give the number of physicians practicing in the State at that time?"

Dr. Kreider answered that there were 6,032 practicing physicians in the State at that time. Five thousand were affiliated with no Society.

Dr. Corr said: "We have been trying to get as many of the medical profession interested in the medical legislation as possible, which should be not all for the public but for the profession in general."

The second paper was entitled, "Efficiency of Our Health Laws," by Dr. S. T. Hurst, of Greenview, representing the Brainard District Medical Society.

The third paper was on the same subject as the second, and was presented by Dr. H. W. Chapman, of Whitehall, representing the Western Illinois Medical and Surgical Association.

The fourth paper by Dr. E. M. Eckard, of Peoria, representing the Peoria Medical Society, was entitled "The Efficiency of Our Laws Relating to Medical Education and Practice."

The papers were all thrown open for discussion as follows:

Dr. R. H. Main, of Barry, said: "The last three papers which have been read were all entitled 'Efficiency of Our Health Laws,' and I believe they all told of 'inefficiency of our laws.' I would like to hear of the efficiency of our laws."

Dr. A. C. Corr, said: "In Illinois we have to put up with the kind of a law we can get, but we must not lay the responsibility on the profession or committee; the difficulty is with the law-making fellows and the law they get out of it. The question has been asked whether the members of the State Board of Health are paid for their services. The Secretary is the only one who receives pay. It takes some money and means to carry on the work, and not many are going to give away their time and work. I suggest you think about some provision so they can have pay."

Dr. S. T. Hurst asked, in regard to the osteopaths, "How are we to run them out?"

Dr. S. E. Crouch said: "There are a great many men traveling over the country professing to make a great many wonderful cures, who are not practitioners at all. It seems they ought to be prosecuted, but there should be some means of getting at them other than securing an ordinance from the local council."

Dr. Carl E. Black said: "It seems to me in a general way that the laws we have in the State will after all represent the profession in its entirety. If the profession is united in its ideas as to what laws we should have relating to the protection of health and of the sick, we will have laws for that purpose. If we are united we will have proper laws. Dr. Pettit says if ten physicians in each county would agree on a law, that bill would become a law, because ten physicians in each county would have enough influence to carry any well-drafted bill. Work-

ing as individuals we have not much influence. Success in securing the passage of proper health laws will depend on the condition of organization which prevails in the profession. We should use every effort to unite the profession in a large and harmonious organization which will work for such measures as will best protect the public health. It is little difference to the regular profession whether the State is overrun with quacks and frauds and humbugs, because after all, we know that when people are legitimately sick they, ninety-nine times out of a hundred, send for regular and legally qualified doctors. The protection of the profession should never be more than an incident. All the laws we adopt should be based entirely on the protection of the public health. One of the best measures for protecting the health of our citizens is such laws as will give to them educated and thoroughly qualified physicians."

Dr. E. M. Eckard said, "he thought we ought to protect our patients against quacks and fads, and try to get rid of them. Who will help the people who are unable to help themselves, if we as physicians do not?"

Owing to the business of the quarterly meeting of the State Board of Health, Dr. Egan, the efficient Secretary of the Board, was unable to be present at the meeting, and Dr. C. B. Johnson, the President of the State Board of Health, was present, and said in part, "he had not come prepared with a paper, but if there were any questions to be asked in regard to the rulings of the State Board of Health, he would be glad to answer them. He thought if the doctors all over the country would work together, they could run most of the quacks out. He said he thought the thing to do was to get a lawyer, one who was in sympathy with the movement, and get after them, and they would be vastly fewer in number than they are."

Dr. Eckard asked of Dr. Johnson if any attempt has been made to prosecute the quacks who put forth obscene advertisements.

Dr. Johnson spoke of a case in Champaign, where a man with a very obscene advertisement was stopping at a hotel. He called upon him; there were several waiting for the "doctor," and he waited his turn. He was very nice to him in every way. Dr. Johnson introduced himself as a member of the Illinois State Board of Health, and asked him if he had a license to practice. He said, "yes," and produced a license signed by Dr. Johnson, as President of the State Board of Health."

Dr. Geo. N. Kreider, of Springfield, said he was very much interested in these papers, as he had been a member of the State Board of Health, and a member of the Legislative Committee, for a number of years, and was familiar with all the medical laws which had been enacted in the State. He spoke of himself and Dr. Pettit as having aroused the profession to influence the Governor to veto the Osteopath bill, which passed by the Legislature in 1897. He said, "In the first place, we know our law is not perfect, and when we are dead and gone our followers will have a law which is not perfect, but I am sure that the laws enacted have been as good as the profession as a whole in the State of

Illinois. We as a profession should see to the enforcement of these laws. If we don't, who will? I think it is unfair for those who never contribute a penny or a moment of time in helping to enforce the laws to criticise them. We have been trying for many years to build up our State Society. It was a very fortunate thing that the Journal was started. The Society has increased nearly fifty per cent. in the ten months it has been issuing the Journal. I believe before another year the Society will have 1,500 members. Such a meeting as this is a grand thing. It is a good thing to discuss these matters. It brings out the difficulties encountered in securing and enforcing the law. You cannot expect to have an ideal law, but if we have a Society of 1,500 members all working together, we will have a law such as we never dreamed of."

Dr. S. T. Hurst said he thought the local Societies should be the originators of all these bills that come up, and if we could agree in the local Society we could in the State Society, and we would be able to have a much better law if we all worked together for the same end.

Dr. E. J. Brown, of Decatur, spoke of the Secretary as being the most important officer of a Medical Society, and that he should be a live man and furnish the Society with an interesting and instructive program each time. He must be willing to give his time and interest to the work. One of the failures of Societies is the want of a decent Secretary.

At the close of the discussion, the following resolution, framed by Dr. A. C. Corr, of Carlinville, was unanimously adopted by those present:

Whereas, The Morgan County Medical Society, in session at Jacksonville, Ill., this twelfth day of April, 1900, for the purpose of discussing the subject of Medical Laws and Medical Organization in the State of Illinois, there being in attendance representatives from numerous Societies; and

Whereas, It has come to our knowledge that Dr. S. H. Birney is seriously sick at his home in Urbana; and

Whereas, It was on his motion in the Illinois State Medical Society, May of 1876, that the first law regulating the practice of medicine and the creation of a State Board of Health, the topics of our discussion and consideration to-day was instigated; therefore, be it

Resolved, That we do here express our deep and sincere sympathy and fraternal feeling with him in his painful affliction, and the hope that he may speedily recover and be restored to health and the enjoyment of that blessing which he has promoted among others, and was so widely felt by those laws he instigated, and did much to have enacted; and

Resolved, That we call on Dr. Johnson, his neighbor, to convey to him our feelings on this occasion.

Dr. F. M. Crane, of Pittsfield, made the following remarks, with resolution:

In conformity with the ideas expressed to-day we should use our influence along these lines to have all men filling public offices, by appointment or otherwise, to be chosen because of their peculiar and special fitness for the place, irre-

spective of all and devoid of any political bearings. At this time I am reminded of the new office of Commissioner of Leprosy. How vitally important it is that the appointment for this office should be the best qualified man that we can get, who will be wholly competent and willing to faithfully carry out this very important work successfully.

Dr. E. S. Goodhue, of Los Angeles, Cal., formerly Government physician in Hawaii, is the ideal man for the place. He is not only highly esteemed throughout the literary world as an author and poet, but he is eminent in the medical world for his able contributions to the various medical journals. It was he who first recommended National and State legislation in regard to leprosy.

I therefore desire to offer the following resolution for the consideration of this body:

Whereas, Dr. Goodhue was the first to see the need of and to recommend a Commissioner of Leprosy; and

Whereas, He is peculiarly and specially qualified for the position; therefore, be it

Resolved, That the officers and members of the Morgan County Medical Society hereby express their utmost confidence in the qualifications, integrity and executive ability of Dr. E. S. Goodhue, and that they recommend that he be appointed Commissioner of Leprosy; and further

Resolved, That a copy of these resolutions be spread on the minutes of this meeting, and that a copy be sent to Dr. Goodhue at Los Angeles, Cal.

The resolutions were unanimously adopted.

Dr. W. T. Moffitt moved to than the members of the Morgan County Medical Society for their hospitality on this occasion, and the very enjoyable hour spent at lunch.

Dr. Carl Black moved that the Society extend a vote of thanks to those who contributed to the program in making the meeting interesting.

Both motions were unanimously carried.
Society adjourned.

Carl E. Black,
Sec. Pro Tem.

State Board of Health Items.

DISINFECTION WITH FORMALDEHYDE.

During the past three months the State Board of Health has devoted much time and attention to an investigation of the merits of formaldehyde as an aerial disinfectant, following up the line of experiments carried on from March to September, 1899, which were referred to at length in the Journal of October, 1899. The tests were confined to the so-called "sheet process," which consists in spraying suspended

sheets with 150 c.c. of the 40% solution for each 1,000 cubic feet of air space to be disinfected, and to an apparatus devised by the St. Louis Health Department from which formaldehyde is evolved by the boiling of the 40% solution.

All experiments were conducted at the University of Illinois under the immediate direction of Professor T. J. Burril, State Bacteriologist.

As in the experiments in 1899 the Board has been unable to obtain any definite result from the gas of formaldehyde of the 40% solution, although as before the tests were made in the most painstaking manner and under varying conditions. Disinfection by the use of 150 c.c. of formaldehyde to each 1,000 cubic feet, the amount commonly used by the health authorities recommending this mode of disinfection and by the different railroads employing its use, could not be accomplished even under the most favorable conditions. By considerably increasing the amount of material in proportion to the space, favorable results were obtained in surface disinfection alone, and then only under proper atmospheric conditions. At a temperature below 50 F. this method was found to be entirely useless. In one experiment, 450 c. c. of formaldehyde were used to 1,000 cubic feet of space, the organisms exposed being *B. typhosus*, *B. anthracis*, *B. diphtheriæ* and *staphylococcus pyogenes aureus*. Not a single culture was affected. The same results were obtained in exposure of 350 c.c. with the same organisms and in the same space.

The Board unequivocally condemns this mode of disinfection, which not only has been found almost worthless, but also somewhat difficult of application. The vapor of formaldehyde is exceedingly irritating, and it is very difficult for the operator to remain in the room while the minimum amount, 150 c.c. even, is being sprayed on the sheets. The Board found that in many instances the solution produced paraform instead of formaldehyde. In all experiments at a temperature below 50, considerable paraform was found on the sheets. This was due to the slow evaporation incident to the low temperature.

The apparatus of the St. Louis Health Department is very simple and the results obtained have been satisfactory. It consists of a copper kettle for formaldehyde, a tripod and a copper vessel for holding alcohol. When the apparatus is placed ready for use the kettle is partly filled with water and the alcohol lighted. When the water boils there is poured into the kettle 40 oz. of 40% solution of formaldehyde, which quantity is deemed sufficient for the disinfection of 2,000 cubic feet of air space. In addition to this there is placed in the room another apparatus similar in construction containing about 2 gallons of water which boils away during the formation of the gas. This has been found necessary on account of the liability of the gaseous formaldehyde to repolymerize on the absence of moisture.

As stated the experiments of the Board with this apparatus were found exceedingly effective under all conditions of temperature and humidity.

The Board will continue its experiments by testing one or more of the portable generators on the market, regulating formaldehyde gas, by the boiling of the 40% solution, and will then publish the results in pamphlet form.

SMALLPOX IN ILLINOIS.

Two hundred and thirty-three cases of smallpox with two deaths have been reported to the State Board of Health since the publication of the April Journal. The disease occurred in Cass, Champaign, Christian, Effingham, Franklin, Kane, LaSalle, Logan, Marion, Mason, McDonough, Mercer, Peoria, Sangamon, Schuyler, St. Clair, Vermilion, Warren, Washington, Wayne, White and Will counties.

The fatalities were reported from Littleton, Schuyler county, and from Ashley, Washington county.

Since December 1st, 1899, 2,703 cases and 21 deaths have been reported to the Board.

The epidemic is now on the decline except in a few counties in the Southern part of the State, in two of which, Hardin and

Pope, new cases are being reported daily. These counties are not under township organization, hence, outside of a few incorporated municipalities, there are no legal health authorities. The State Board of Health is now taking steps to have a rigid quarantine in each county established by the sheriff and has engaged inspectors to make an inspection of all localities reported infected.

The prevailing type of the malady is still mild, although many severe cases of a confluent character have been reported. The Board in its efforts to control the disease is still seriously embarrassed by the attitude of the physicians who persist in calling the malady "Puerto Rican chicken-pox" and "Cuban itch."

INVESTIGATION OF THE WATER SUPPLIES OF ILLINOIS.

All members of the State Medical Society and especially those who have read the Report of Water Supplies of Illinois and the Pollution of its Streams, by Dr. John H. Rauch, with Appendix by Dr. John H. Long and L. E. Cooley, C. E., will be pleased to know that the State Board of Health will soon issue another report of this character, which will show the results of a thorough sanitary survey of the Illinois river and its tributaries, including chemical and bacteriological analyses of samples of water taken at regular intervals throughout their courses. The report will have special reference to the effect of sewage upon the Desplaines and Illinois rivers prior to and after the opening of the Chicago Sanitary Canal. Articles will be written by the Secretary, the Sanitary Engineer, Mr. J. A. Harman, of Peoria, and by the Chemist J. H. Long, Sc. D., who needs no introduction to the medical profession of Illinois.

Since July, 1899, the State Board of Health has made weekly analyses of water taken at various points from Bridgeport to Grafton, and the result is shown in the very elaborate tables which accompany Dr. Long's report. These investigations will

be continued throughout the summer and the results will be shown in the revised report to be published in the fall when the Board will be able to form a correct judgment of the effect of the change upon the Illinois river through the opening of the Sanitary Canal, and to state whether its sanitary condition is improved or not.

State Items.

Under "Correspondence" in the controversy on smallpox, erythema bulbosum as stated should read "erythema bullosum."

At a meeting of the board of directors of the Chicago Eye, Ear, Nose and Throat College, Dr. A. G. Wipperfurth was elected vice-president and treasurer, and Dr. Wm. L. Ballenger was re-elected to the chair of otology, rhinology and laryngology.

A trained nurse in DeKalb county has been sued for slander by a physician, who charges that she declared a patient of his died from an overdose of morphine.

Dr. Bayard Holmes left the city March 21. He will attend the congress for the prevention of tuberculosis at Naples, Italy, in April.

Dr. E. A. Foley, of the Northern Illinois Hospital for the Insane, Elgin, has been promoted to the vacancy caused by the resignation of Dr. Lucius Foote, second assistant physician.

The Physicians' Club at Elgin held a social the evening of March 4. Dr. Ohls presided and the evening spent in enjoying music and the refreshments, which were served by the ladies.

The engineering committee of the Chicago Drainage Canal Board has received a report on the examinations of Illinois River water, carried on in the interests of the Board. It is said that the results have

been adverse to the St. Louis suit now pending in the supreme court. The report states: "The condition of the water at the mouth of the Illinois was almost normal with that of the general water supplies of the main tributaries of the Illinois river. The investigation so far shows clearly that there has been scarcely any pollution of water supplied to St. Louis at the intake."

Letters each with enclosure have been received from:

G. W. Whitfield, Chicago.
 B. L. Riese, Chicago.
 A. L. Brittin, Athens.
 R. A. McClelland, Yorkville.
 F. O. Lowe, Kewanee.
 Helen Babb, Springfield.
 Jos. Brayshaw, Berlin.
 J. W. Redwine, Whitehall.
 Jas. L. Lowrie, Lincoln.
 L. L. Leeds, Lincoln.
 M. S. Marcy, Peoria.
 J. E. Owens, Chicago.
 T. N. Livesay, Patoka.
 Peter Schmitz, Leonore.
 W. E. Schroeder, Chicago.
 A. P. White, Danville.
 F. J. Mittan, Colfax.
 J. A. Patton, Chicago.
 A. F. Wilhelmny, Decatur.
 Walter Miles, Chandlerville.
 J. R. Pennington, Chicago.
 Denslow Lewis, Chicago.
 Jas. S. Mason, Rantoul.
 Kath Miller, Lincoln.
 H. M. Leeds, Allendale.
 G. E. Southwick, Beamington.
 J. W. Hairgrove, Jacksonville.
 John Bergeson, Serena.
 G. G. Wilcox, Seneca.
 S. E. Munson, Springfield.
 Chas. Kerr, Springfield.
 F. A. Nevill, Meredosia.
 H. T. Patrick, Chicago.
 S. L. Breckenridge, Riverside.
 C. P. Stringfield, Chicago.
 F. J. Parkhurst, Danvers.
 E. H. Wheeler, Murphysboro.
 T. J. Pitner, Jacksonville.
 G. W. Fringer, Pana.

Marriages, Deaths, Change of Address

MARRIAGES.

- Dr. Emanuel J. Senn, of Chicago, and Miss Alys Larousini, at New Orleans, La., April 24, 1900.
- Dr. John Ernest Mayhew and Miss Theresa Wade of Chicago, April 18, 1900.
- Dr. Fred F. Teal, of Omaha, Neb., and Miss Maud Merriam, daughter of Dr. and Mrs. Russell B. Merriam, of Chicago, April 19, 1900.
- Dr. W. B. Pickrell and Miss Frances Taylor, daughter of Dr. and Mrs. I. H. Taylor, of Springfield, March 14, 1900.
- Dr. G. J. Bergener, of La Salle, and Baroness Amelia Triebe von Triewalden, of Vienna, at Dresden, Germany, March 23, 1900.

DEATHS.

(Furnished by State Board of Health.)

- Bigelow, Arthur W., Chicago, age 35.
- Bacon, A. J., Gardena, Cal., March 30, age 60.
- Bradley, Chas D., Chicago, April 7, age 49.
- Harmon, Jos. W., Chicago, March 29, age 85.
- Ingram, E. W., Golden Gate, April 5.
- Jones, Emery C., Virden, March 21.
- Plummer, S. C., Rock Island, April 30, age 79.
- Smith, S. L., Chicago, Feb. 17, age 29.
- Smith, Geo. A., Henton, March 30, age 50.
- Spees, F. T., Tuscola, April 8, age 76.
- Van Valzah, S. B., Chicago, in April, age 70.
- Wilson, Geo. A., Peoria, April 6, age 59.
- Wetherell, Geo. F., Chicago, March 20.
- Wallick, Frederick F., Williamsfield, March 27.

CHANGES OF ADDRESS.

(Furnished by State Board of Health.)

CHANGES IN CHICAGO.

- Blech, G. M., 1434 Michigan ave. to 103 State st.
- Burbank, C. H., 4830 N. Clark st. to 538 Lunt ave.
- Bergquest, Eda, 70 State st. to 1556 Milwaukee ave.
- Crabtree, Geo. H., 623 E. 65th st. to 625 E. 25th st.
- Dowdall, W. T., 7100 Chicago ave. to 3816 Rhodes ave.
- Elliott, Chas. A., 4705 Indiana ave. to 6358 Minerva ave.
- Fowler, A. M., 5225 to 4801 Ashland ave.
- Hatfield, C. L., 3915 Calumet ave. to 3133 Parnell ave.
- Harvey, Robt. H., 65 Randolph st. to 100 State st.
- Mack, M. H., 690 W. Madison st to 3000 Indiana ave.
- Morris, T. B., 685 W. Van Buren st. to Illinois Steel Company Hospital.
- Pleth, Valdemar, 719 to 750 W. North ave.

CHANGES FROM CHICAGO.

- Carver, S. C., to Winterset, Ia.
- Foley, E. A., to Elgin.
- Ross, David D., to Peoria.
- Snyder, L. A., to Chicago Heights.
- Sullivan, F. J., to Ohio, Ill.
- Williams, E. E., to Kangley.

CHANGES TO CHICAGO.

- Bettman, Boerne, London, England, to 2522 Michigan ave.

- Burdick, Alfred S., West Hallock to 358 Dearborn st.
- Elfeld, Edw. A., German Valley to 330 La Salle st.
- Kanaval, Allen B., Sedgewick, Kan., to Cook County Hospital.
- Walters, Hamlin J., to 6527 Kimbark ave.

CHANGES FROM ILLINOIS.

- Auten, Frank E., Newman to Dayton, Ohio.
- Evans, M. H. Jr., Spring Valley to Joplin, Mo.
- Lamon, Chas. E., Fairmount to ———.
- Nash, Wm. R., Fairmount to ———.
- Peterson, Vern A., Somonauk to Arizona.
- Paris, Wm. J. J., Elizabethtown to Marion, Ky.
- Prince, E. M., Rushville to Astoria.
- Reagin, C. G., DuQuoin to Elizabeth, Col.
- Sheffield, D. A., Apple River to Elma, Ia.

CHANGES TO ILLINOIS.

- Baily, G. O., to Armington.
- Churchill, H. Roy, St. Louis, Mo., to Peoria.
- Cohen, Morris S., to Grant Fork.
- Cole, Vincent, to Rockford.
- Fisk, Redford W., to Quincy.
- Green, F. L., to Kangley.
- Horwitz, Sandor, to Peoria.
- Martin, E. W., to Morton.
- McMillan, J. C., to New Berlin.
- Robinson, Mary T., St. Louis, Mo., to Pawnee.
- Rider, C. J., Ohio to Bushnell.
- Sission, Chas E., Wisconsin to Elgin.
- Schreifels, Leonard, St. Louis, Mo., to Granite.
- Trainor, T. H., to Ransom.
- Wright, C. M., to Blaine.
- Wallace, Jeannette C., to Peoria.
- White, John T., to Freeport.

CHANGES IN ILLINOIS.

- Allen, Carlos A., Lowder to Virden.
- Brown, Wilson, New Grand Chain to Metropolis City.
- Bucknell, S. E., New Douglas to Alhambra.
- Banks, J. H., Anchor to Atlanta.
- Blair, E. J., Monmouth to Charleston.
- Coone, Bathena, Peoria to Hanna City.
- Enos, J. W., Alton to Jerseyville.
- Ennis, Isaac B., Waldron to Martinton.
- Garrison, A. Jessup, Broadlands to Long View.
- Grassau, Andrew, Rock Island to Apple River.
- Holson, Ralph R., Ivesdale to Altamont.
- Hart, S. F., Ottawa to Ozark.
- Hosier, J. W., Hollowayville to La Salle.
- Hood, Wm. T., Peoria to Leonore.
- Kemp, C. H., Colchester to Tiskilwa.
- Leavens, D. C., Lee Center to Amboy.
- Long, Harlan W., Newton to Yale.
- McAlpine, Abram M., Champaign to Peoria.
- May, Louis R., Camden to New Berlin.
- McKenzie, R. E., Kappa to Gilman.
- McGurty, P. H., Martinsville to Hume.
- Pembroke, W. K., Bethalto to E St. Louis.
- Porter, A. G., Jerseyville to Alton.
- Rowe, Jesse, Monmouth to Abingdon.
- Roberts, R. B., Downs to Plymouth.
- Rideout, Wm. J., Atwood to Freeport.
- Smith, D. G., Virginia to Elizabeth.
- Seems, G. F., Basco to Adrian.
- Tinsley, James M., Savoy to Philo.
- Willis, W. H., Whitefield to Peoria.
- Williams, H. O., Belknap to Galatia.
- White, Howard E., Campus to Fairmount.

CALENDAR OF MEDICAL SOCIETIES.

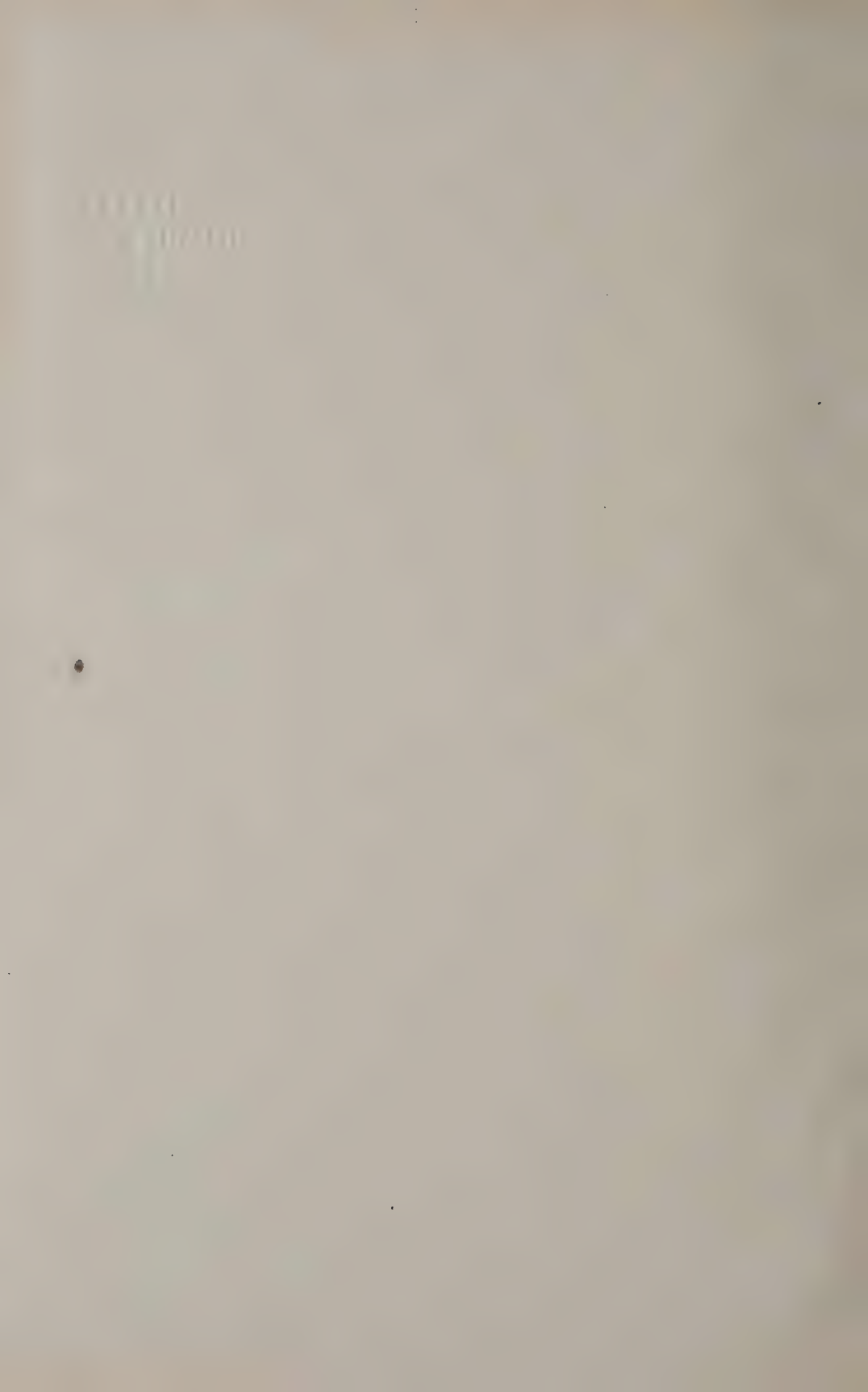
City.	President.	Secretary.	Time and Place of Meeting.
Alton Medical Society.....	W. A. Haskell, Alton.....	P. W. Beckman, Alton.....	1st Thursday of each month
Chicago Pediatric Society.....	A. C. Cotton, Chicago.....	F. S. Churchill, Chicago.....	Monthly
Chicago Society of Internal Medicine.....	John A. Robison, Chicago.....	Ed. F. Wells, Chicago.....	1st Friday of every month Oct. to June
Chicago Surgical Society.....	John E. Owens, Chicago.....	A. W. Eisendrath, Chicago.....	Quarterly in connection with Chi. Med. Soc.
Chicago Laryngological Society.....	E. Fletcher Ingalls, Chicago.....	T. Melville Hardie, Chicago.....	Monthly, except July and August
Chicago Orthopedic Society.....	Frederic S. Coolidge, Chicago.....	John L. Porter, Chicago.....	2d Friday of each month
Chicago Academy of Medicine.....	W. L. Baum, Chicago.....	J. G. Kierman, Chicago.....	1st Friday of each month
Chicago Bohemian Medical Society.....	Chas. Stulik, Chicago.....	W. J. Dvorak, Chicago.....	Every Wednesday evening
Chicago Medical Society.....	J. C. Hoag, Chicago.....	Arthur K. Edwards, Chicago.....	2d Monday of each month
Chicago Pathological Society.....	Ludwig Hektoen, Chicago.....	George H. Weaver, Chicago.....	3rd Friday of each month
Chicago Gynecological Society.....	Thomas J. Watkins, Chicago.....	Wm. H. Rumpf, Chicago.....	2nd Tuesday of each month
Chicago Ophthalmological Society.....	Richard Dewey, Chicago.....	C. P. Finkard, Chicago.....	No regular meeting
Chicago Neurological Society.....	Denslow Lewis, Chicago.....	Sydney Kuhn, Chicago.....	Quarterly
Chicago Medical Examiners.....	H. A. Hadley, Chicago.....	Wm. L. Baum, Chicago.....	2nd Monday of each month
Demonstrator's Association of Chicago.....	Wm. J. Chenoweth, Decatur.....	M. L. Harris, Chicago.....	Monthly
Decatur Medical Society.....	C. P. Thompson, Jacksonville.....	W. C. Wood, Decatur.....	Every two weeks
Jacksonville, Medical Club.....	Jos. Matteson, Chicago.....	H. C. Campbell, Jacksonville.....	1st Saturday September, March and June
Medical Legal Society of Chicago.....	Carl Wagner, Chicago.....	Wm. S. Baum, Chicago.....	Monthly
North Chicago Medical Society.....	J. C. Hatheway, Ottawa.....	J. N. Washington, Chicago.....	Monthly
Ottawa City Medical Society.....	O. J. Koskoton, Peoria.....	Wm. A. Pike, Ottawa.....	Monthly
Physician's Club of Chicago.....	Geo. A. Torrison, Chicago.....	N. M. Sedgewick, Peoria.....	Monthly
Scandinavian Medical Society of Chicago.....	Geo. F. Swan, Chicago.....	Wm. H. Wilder, Chicago.....	3d Thursday of each month
South Chicago Medical Society.....	Gertrude G. Wellington, Chicago.....	Thos. Warloe, Chicago.....	1st and 3d Tuesday of each month
The Medical Women's Club of Chicago.....	H. C. Howard, Champaign.....	John S. Davis, Chicago.....	1st Tuesday in each month
Twin City (Champaign and Urbana) Clinical Association.....	Chas. A. Nichols, Urbana.....	Jennie Trish Topinka, Chicago.....	2d and 4th Wednesdays of each month
Urbana Society of Physicians and Surgeons.....		E. S. Smith, Urbana.....	1st Monday of each month
County.	President.	Secretary.	Time and Place of Meeting.
Adams County Medical Society.....	Frank E. Tull, Quincy.....	W. W. Williams, Quincy.....	Monthly, on 2nd Monday at Quincy
Bureau County Medical Society.....	S. W. Hopkins, Walnut.....	A. E. Owens, Princeton.....	2nd Thursday of Nov. and May
Bond County Medical Society.....	B. F. Coop, Greenville.....	C. C. Gordon, Greenville.....	Meets in September and April
Clay County Medical Society.....	M. M. Gladson, Hord.....	W. E. Burgett, Louisville.....	Quarterly at Louisville
Clinton County Medical Society.....	W. T. Gordon, Carlyle.....	M. Broening, Carlyle.....	May, Aug., Nov., and Feb., at Carlyle
Champaign County Medical Society.....	T. J. McKinney, Gifford.....	J. C. Dodds, Tolo.....	Monthly at Champaign
Crawford County Medical Society.....	W. H. Hoskinson, Trimble.....	John Weir, West Union.....	2d Thurs. in July, Sept., Nov., Jan. & May
DeWitt County Medical Society.....	D. W. Edmiston, Clinton.....	John A. Tyler, Clinton.....	2d Tuesday in Jan., April, July and Oct.
Douglas County Medical Society.....	B. T. McClain, Alwood.....	W. E. Rice, Tuscola.....	1st Thursday in Feb., May, Aug. and Nov.
Fullon County Medical Society.....	E. W. Regan, Canton.....	D. S. Ray, Cuba.....	1st Monday in May at Carthage
Hancock County Medical Society.....	J. H. Mitchell, Mt. Vernon.....	R. L. Casburn, Carthage.....	
Kankakee County Medical Society.....	Geo. H. Lee, Kankakee.....	A. A. Dearduff, Mt. Vernon.....	1st Thursday of each month
Lake County Medical Society.....	L. M. Bergen, Waukegan.....	A. C. Haven, Lake Forest.....	Annually, 3rd Tuesday in April
LaSalle County Medical Society.....	Wm. G. Purney, Seneca.....	E. H. Butterned, Ottawa.....	3d Tues. in April and Oct. at Carlinville
Macoupin County Medical Society.....	J. S. Collins, Carlinville.....	J. F. Matthews, Carlinville.....	1st Tuesday Jan., April, July and Oct.
McDonough County Medical Society.....	D. A. Blair.....	S. C. Stremmel.....	1st Thursday of each month at Bloomington
McLean County Medical Society.....	Chas. E. Chapin, Bloomington.....	F. C. Vandervort, Bloomington.....	In March and September at Waterloo
Monroe County Medical Society.....	H. Ganter, Foraville.....	L. Adelsgerger, Waterloo.....	2d Thursday, Metropolis
Mascac County Medical Society.....	S. J. Rhodes, Metropolis.....	C. E. Trovillion, Metropolis.....	
Morgan County Medical Society.....	W. C. Cole, Jacksonville.....	Edw. Bowe, Jacksonville.....	2d Tuesday of each month at Jacksonville

CALENDAR OF MEDICAL SOCIETIES—Continued.

County.	President.	Secretary.	Time and Place of Meeting.
Pike County Medical Society.....	L. J. Harvey, Griggsville.....	R. H. Main, Barry.....	Monthly
Ogle County Medical Society.....	G. M. McConney, Oregon.....	H. A. Mix, Oregon.....	1st Wednesday in January and July
Physicians' Protective Assn. of Jackson Co.	W. W. Essick, Murphysboro.....	O. B. Ormsby, Murphysboro.....	2d and 4th Saturday of each month
Rock River Valley Medical Association.....	A. G. McBride, Sterling.....	A. L. Miller, Dixon.....	2d week in June and December
St. Clair County Medical Society.....	E. P. Raab, Belleville.....	J. P. Stack, E. St. Louis.....	
Schuyler County Medical Society.....	J. A. Harvey, Rushville.....	C. W. Ball, Rushville.....	
Saline County Medical Society.....	J. W. Talman, Harrisburg.....	J. R. Baker, Harrisburg.....	1st Monday in each month.....
Stamper County Medical Society.....	Geo. N. Kreider, Springfield.....	E. P. Bartlett, Springfield.....	Monthly, on 2d Monday at Springfield
Stephenson County Medical Society.....	J. B. Leitzell, Orangeville.....	J. F. Fair, Freeport.....	Annually
Tri-County Medical Society.....	M. S. Brown, Danville.....	A. G. Mizell, Shelbyville.....	1st Tuesday in June and December
Vermilion County Medical Society.....	W. A. Cochran, Danville.....	B. E. Clark, Danville.....	2d Friday evening at Danville
Will County Medical Society.....	G. M. Peairs, Joliet.....	Thos. J. Wagner, Joliet.....	2nd Tuesday of each month
Winnebago County Medical Society.....	J. Schneek, Mt. Carmel.....	G. C. Kingsbury, Mt. Carmel.....	Quarterly
Warren County Medical Society.....	T. N. Miller, Rockford.....	J. H. Frost, Rockford.....	Annually
White County Medical Society.....	E. J. Blair, Monmouth.....	A. G. Patton, Monmouth.....	Semi-Annually
Williamson County Medical Society.....	W. H. Apple, Carmi.....	W. A. Steele, Carmi.....	2d Thursday in Jan., April, July and Oct.
Woodford County Medical Association.....	W. H. Bentley, Marion.....	G. W. Evans, Marion.....	1st Monday of Jan., April, July and Oct.
	C. E. Davis, Peoria.....	Frank Stubblefield, El Paso.....	1st Tuesday in May
District.	President.	Secretary.	Time and Place of Meeting.
Aesculapian Society of the Wabash Valley.	Z. T. Baum, Paris.....	H. McKennan, Paris.....	Terre Haute, Ind., in May
Association Military Surgeons of Illinois.....	Col. Nicholas Senn, Chicago.....	Lt. Col. Chas. Adams, Chicago.....	Annually, Chicago or Springfield
Bretnard District Medical Society.....	F. M. Coppell, Havana.....	Katherine Miller, Lincoln.....	4th Thursday of Jan., April, July and Oct.
District Medical Society of Central Illinois.....	Moses Harnes, Bingham.....	J. N. Nelms, Taylorville.....	Last Thursday in April and October
Fox River Valley Medical Association.....	C. L. Smith, Aurora.....	M. M. Robbins, Aurora.....	At Elgin in May and at Aurora in Nov.
Galva District Medical Society.....	W. A. Grove, Galva.....	C. W. Hall, Kewanee.....	Annually, 1st Tuesday in May at Galva
Iowa & Illinois Cent. District Medical Assn.	C. C. Carter, Rock Island.....	G. E. Decker, Davenport, Ia.....	Quarterly
Medical & Surgical Society of Western Ill.	H. W. Smith, Roodhouse.....	H. A. Chapin, Whitehall.....	May 4th at Carrollton
Military Tract Medical Association.....	E. J. Sutton, Canton.....	C. B. Horrell, Galesburg.....	At Kewanee
North Central Illinois Medical Association.....	F. M. Burke, LaSalle.....	Geo. A. Dicus, Streator.....	Annually, 1st
Southern Illinois Medical Association.....	J. O. DeCourcy, St. Louis.....	C. G. Rayhill, Belleville.....	Semi-annually

THE LIBRARY OF THE
OCT 5 1924
UNIVERSITY OF ALABAMA





LIBRARY
UNIVERSITY OF TORONTO
TORONTO

UNIVERSITY OF ILLINOIS-URBANA



3 0112 099001544